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High Definition Plasma Display

- TH-50PHW6BX
  TH-50PHW6EX
  TH-50PHD6EX
  TH-50PHD6BX
  TH-50PHD6UY

GPH6D2 Chassis



Specifications

Power Source:	AC120V 50/ 60Hz (UY version) AC220-240V 50/ 60Hz (Except UY version model)
Power Consumption:	445 W
	Save off 1.6 W, Save on 0.9 W (stand-by condition) (UY version) Save off 1.9 W, Save on 1.1 W (stand-by condition) (Except UY version model)
	0.2 W (Power off condition) (UY version model) 0.4 W (Power off condition) (Except UY version model)
Plasma Display panel:	Drive method AC type
	16:9 aspect ratio
Contrast Ratio	3000:1
Screen size:	1,106 mm (W)× 622 mm (H) 1,269 mm (diagonal)
	No. of pixels
	1,049,088 (1,366 (W)× 768 (H)) [4,098× 768 dots]
Operating condition:	
Temperature	34° F - 104° F (0° C - 40° C)
Humidity	20% - 80%
	Horizontal scanning frequency 15 - 110kHz
	Vertical scanning frequency 48 - 120Hz
Connection terminals:	
AV	
Video in	1.0 Vp-p (75-ohm)

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	S-VIDEO IN (MINI DIN 4PIN)	Y: 1 Vp-p (75-ohm), C: 0.286 Vp-p (75-ohm)
	AUDIO IN (RCA PIN JACK× 2)	0.5 Vrms (high impedance)
COMPONENT/ RGB		
	Y/ G	1.0 Vp-p/ composite (75-ohm)
		0.7 Vp-p/ non-composite (75-ohm)
	P B/ B	0.7 Vp-p (75-ohm)
	P R/ R	0.7 Vp-p (75-ohm)
	HD	1.0 - 5.0 Vp-p (high impedance)
	VD	1.0 - 5.0 Vp-p (high impedance)
	AUDIO IN (RCA PIN JACK× 2)	0.5 Vrms (high impedance)
PC		
	(HIGH-DENSITY D-SUB15PIN)	R,G,B/ 0.7 Vp-p (75-ohm)
		HD, VD/ 1.0 - 5.0 Vp-p (high impedance)
	AUDIO IN (M3 JACK)	0.5Vrms (high impedance)
SERIAL		
	EXTERNAL CONTROL TERMINAL (D-SUB9PIN)	RS-232C COMPATIBLE
SPEAKERS (External speakers) (6Ω)		16W [8W+ 8W] (10% THD)
Dimensions (W× H× D):		1,210 mm× 724 mm 95 mm
Weight (Mass)		approx. 43.5 kg net (main unit only) approx. 48.1 kg net (with speakers)

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2.1 General Guidelines

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1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.

2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.

3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

2.1.1 Leakage Current Cold Check

2.1.2 Leakage Current Hot Check (See Figure 1 .)

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Version	2.00
Reason	Parts change for D board, IC9702, HX board and IC3502.
Notes	Parts change for D board, IC9702, HX board and IC3502.
Interchange Date	
Update Time	2003.12.25

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High Definition Plasma Display

- TH-50PHW6BX
  TH-50PHW6EX
  TH-50PHD6EX
  TH-50PHD6BX
  TH-50PHD6UY

GPH6D2 Chassis



Specifications

Power Source:	AC120V 50/ 60Hz (UY version) AC220-240V 50/ 60Hz (Except UY version model)
Power Consumption:	445 W
	Save off 1.6 W, Save on 0.9 W (stand-by condition) (UY version) Save off 1.9 W, Save on 1.1 W (stand-by condition) (Except UY version model)
	0.2 W (Power off condition) (UY version model) 0.4 W (Power off condition) (Except UY version model)
Plasma Display panel:	Drive method AC type
	16:9 aspect ratio
Contrast Ratio	3000:1
Screen size:	1,106 mm (W)× 622 mm (H) 1,269 mm (diagonal)
	No. of pixels
	1,049,088 (1,366 (W)× 768 (H)) [4,098× 768 dots]
Operating condition:	

Temperature	34° F - 104° F (0° C - 40° C)
Humidity	20% - 80%
	Horizontal scanning frequency 15 - 110kHz
	Vertical scanning frequency 48 - 120Hz
Connection terminals:	
AV	
Video in	1.0 Vp-p (75-ohm)
S-VIDEO IN (MINI DIN 4PIN)	Y: 1 Vp-p (75-ohm), C: 0.286 Vp-p (75-ohm)
AUDIO IN (RCA PIN JACK× 2)	0.5 Vrms (high impedance)
COMPONENT/ RGB	
Y/ G	1.0 Vp-p/ composite (75-ohm)
	0.7 Vp-p/ non-composite (75-ohm)
P B/ B	0.7 Vp-p (75-ohm)
P R/ R	0.7 Vp-p (75-ohm)
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VD	1.0 - 5.0 Vp-p (high impedance)
AUDIO IN (RCA PIN JACK× 2)	0.5 Vrms (high impedance)
PC	
(HIGH-DENSITY D-SUB15PIN)	R,G,B/ 0.7 Vp-p (75-ohm)
	HD, VD/ 1.0 - 5.0 Vp-p (high impedance)
AUDIO IN (M3 JACK)	0.5Vrms (high impedance)
SERIAL	
EXTERNAL CONTROL TERMINAL (D-SUB9PIN)	RS-232C COMPATIBLE
SPEAKERS (External speakers) (6Ω)	16W [8W+ 8W] (10% THD)
Dimensions (W× H× D):	1,210 mm× 724 mm 95 mm
Weight (Mass)	approx. 43.5 kg net (main unit only) approx. 48.1 kg net (with speakers)

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1 Applicable signals

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VIDEO input

	signal name	horizontal frequency(kHz)	vertital frequency(Hz)
1	NTSC	15.734	59.95
2	PAL	15.625	50
3	PAL60	15.734	59.95
4	SECAM	15.625	50
5	Modified NTSC	15.734	59.95

*** Mark:**
By installing the optional Terminal Board.

Applicable input signals for PC Input (D-sub 15P) (* Mark)

	signal name	horizontal frequency(kHz)	vertital frequency(Hz)	RGB	PC	when Multi Screen and Digital Zoom
1	525(480)/60i	15.73	59.94	*	*	*
2	525(480)/60p	31.47	59.94	*	*	*
3	625(575)/50i	15.63	50.00	*	*	*
4	625(575)/50p	31.25	50.00	*	*	*
5	750(720)/60p	45.00	60.00	*	*	*
6	750(720)/50p	37.50	50.00	*	*	*
7	1,125(1,080)/60i	33.75	59.94	*	*	*
8	1,125(1,080)/50i	28.13	50.00	*	*	*
9	1,125(1,080)/24p	27.00	24.00	*	*	
10	1,125(1,080)/24sF	27.00	48.00	*	*	*
11	1,250(1,080)/50i	31.25	50.00	*	*	*
12	640×400@70 Hz	31.47	70.00		*	*
13	640×480@60 Hz	31.47	59.94		*	*
14	Macintosh13"(640×480)	35.00	66.67		*	*
15	640×480@75 Hz	37.50	75.00		*	*
16	852×480@60 Hz	31.50	60.00		*	*
17	800×600@60 Hz	37.88	60.32		*	*
18	800×600@75 Hz	46.88	75.00		*	*
19	800×600@85 Hz	53.67	85.06		*	*
20	Macintosh16"(832×624)	49.73	74.55		*	*
21	1,024×768@60 Hz	48.36	60.00		*	*
22	1,024×768@70 Hz	56.48	70.07		*	*
23	1,024×768@75 Hz	60.02	75.03		*	*
24	1,024×768@85 Hz	68.68	85.00		*	*
25	Macintosh21"(1,152×870)	68.68	75.06		*	
26	1,280×1,024@60 Hz	63.98	60.02		*	
27	1,280×1,024@75 Hz	79.98	75.03		*	
28	1,280×1,024@85 Hz	91.15	85.02		*	
29	1,600×1,200@60 Hz	75.00	60.00		*	
30	1,0660×600@60 Hz	37.88	60.32		*	*
31	1,366×768@60 Hz	48.36	60.00		*	*

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2 Safety Precautions

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2.1 General Guidelines

2.1.1 Leakage Current Cold Check

2.1.2 Leakage Current Hot Check (See Figure 1 .)

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14.66 Z-Board (2 of 2) Schematic Diagram

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15 Parts Location

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16 Mechanical Replacement Parts List

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
	EUR646529	REMOTE CONTROL	1	TH-50PHD6BX/EX/UY
	EUR646530	REMOTE CONTROL	1	TH-50PHW6BX/EX
	FBL08A12LS	FAN	3	
	J0KD00000049	FLAT CORE	4	
	J0KF00000018	FILTER	1	
	J0KG00000042	NOISE FILTER	2	
	J0KG00000054	NOISE FILTER	2	
	K1KA02A00104	2P CONNECTOR	1	
	K1KA03A00172	3P CONNECTOR	4	
	K1KA03A00213	3P CONNECTOR	1	
	K1KA04A00242	4P CONNECTOR	1	
	K1KA06A00180	6P CONNECTOR	1	
	K1KA07A00096	7P CONNECTOR	1	
	K1KA09A00099	9P CONNECTOR	1	
	K1KA10A00259	10P CONNECTOR	1	
	K1KA11A00073	11P CONNECTOR	1	
	K2AH3H000027	AC INLET	1	⚠
	K2CG3DH00025	AC CORD	1	TH-50PHD6UY ⚠
	K2CN3DH00004	AC CORD	1	TH-50PHW6EX,TH-50PHD6EX ⚠
	K2CT3DH00017	AC CORD	1	TH-50PHW6BX,TH-50PHD6BX ⚠
1	MD50H06A1J	PLASMA DISPLAY PANEL	1	⚠
	R6PPTT/2ST	BATTERY	1	
	TBMA008	PANASONIC BADGE	1	TH-50PHD6BX/EX/UY
	TBMA118	PANASONIC BADGE	1	TH-50PHW6BX/EX
2	TBXA28202A	POWER BUTTON	1	TH-50PHD6BX/EX/UY
2	TBXA28214	POWER BUTTON	1	TH-50PHW6BX/EX
3	TBXA38901	HINDGE BUTTON	1	TH-50PHW6BX/EX
3	TBXA38902	HINDGE BUTTON	1	TH-50PHD6BX/EX/UY

4	TESD031	SPRING	1	
	THEA068N	SCREW	4	
	THEL023Z	SCREW	14	
	THEL027N	SCREW	26	
	THEL035N	SCREW	100	
	THTD010N	SCREW	6	
	THTD011	SCREW	3	
	THTF003Y	SCREW	41	
	TJS1A8840	8P CONNECTOR	1	
5	TKGA5125	FRONT GLASS	1	
6	TKKC5105	LED PANEL	1	
	TKKL5266	COVER	1	
7	TKPA60301	REMOCON RECEIVE PANEL	1	TH-50PHD6BX/EX/UY
7	TKPA60302	REMOCON RECEIVE PANEL	1	TH-50PHW6BX/EX
8	TKPA63401	PHOTO IC RECEIVE PANEL	1	
9	TKRA20501	HANDLE	2	
	TMKG252	CUSHION	2	
	TMKG253	CUSHION	2	
	TMM15414-2	CLAMPER	1	
	TMM17499	CLAMPER	1	
	TMM23416	SPACER	12	
	TMM23417	CLAMPER	1	
	TMM25401	CLAMPER	4	
	TMM7464-2	CLAMPER	2	
	TMM7468-1	CLAMPER	3	
	TMME047	CLAMPER	4	
	TMME061	CLAMPER	4	
	TMME075	EADG SADOLE	1	
	TMME152	CLAMPER	1	
	TMME185	CLAMPER	2	
	TMME187	CLAMPER	2	
	TMME190	CLAMPER	1	
	TMME225	AC CORD CLAMPER	1	

	TMME228	CLAMPER	2	
	TMMJ074	CUSHION (RUBBER)	6	
	TMMJ082	CUSHION (RUBBER)	8	
	TMMX067	CAP	4	
	TMMX095	BRACKET	2	
	TMWC006-1	POWER BUTTOM BRACKET	1	
	TMXX021-1	CORE HOLDER	4	
	TPCA97185	CARTON BOX	1	TH-50PHD6EX ⚠
	TPCA97186	CARTON BOX	1	TH-50PHD6BX ⚠
	TPCA97192	CARTON BOX	1	TH-50PHW6EX ⚠
	TPCA97193	CARTON BOX	1	TH-50PHW6BX ⚠
	TPCA97201A	CARTON BOX(BOTTOM)	1	
	TPCB45601	CARTON BOX	1	TH-50PHD6UY ⚠
	TPCB48801	CARTON BOX	1	TH-50PHD6UY ⚠
	TPD169487	JOINT	8	
	TPDA0675	CUSHION(UPPER LEFT/RIGHT)	1	TH-50PHD6UY
	TPDA0676	CUSHION(CENTER)	1	TH-50PHD6UY
	TPDA0794	CUSHION(BOTTOM LEFT/RIGHT)	1	TH-50PHD6UY
	TPDA0806	CUSHION(UPPER/LEFT)	1	
	TPDA0807	CUSHION(BOTTOM/ LEFT)	1	
	TPDF0536	PAD(TOP)	1	
	TPDF0737	PAPER BOX	1	
	TPDF0906	PAD(TOP)	1	TH-50PHD6UY
	TPEH170	PROTECT COVER	1	
	TPGA2160	CARTON BOX	1	TH-50PHD6UY
	TPGA2170	CARTON BOX(BOTTOM)	1	TH-50PHD6UY
	TQBC0570	INSTRUCTION BOOK(ENGLISH)	1	TH-50PHD6UY ⚠
	TQBC0571	INSTRUCTION BOOK(FRENCH)	1	TH-50PHD6UY ⚠
	TQBC0572	INSTRUCTION BOOK(SPANISHj	1	TH-50PHD6UY ⚠
	TQBC0573	INSTRUCTION BOOK(ENGLISH	1	TH-50PHW6EX ⚠
	TQBC0574	INSTRUCTION BOOK(GARMEN)	1	TH-50PHW6EX ⚠
	TQBC0575	INSTRUCTION BOOK(FRENCH)	1	TH-50PHW6EX ⚠
	TQBC0576	INSTRUCTION BOOK(ITALIAN)	1	TH-50PHW6EX ⚠
	TQBC0577	INSTRUCTION BOOK(SPANISH)	1	TH-50PHW6EX ⚠

	TQBC0578	INSTRUCTION BOOK(DUTCH)	1	TH-50PHW6EX ⚠
	TQBC0579	INSTRUCTION BOOK(DANISH)	1	TH-50PHW6EX ⚠
	TQBC0580	INSTRUCTION BOOK(SWEDISH)	1	TH-50PHW6EX ⚠
	TQBC0581	INSTRUCTION BOOK(ENGLISH)	1	TH-50PHW6BX ⚠
	TQBC0598	INSTRUCTION BOOK(ENGLISH)	1	TH-50PHD6EX ⚠
	TQBC0599	INSTRUCTION BOOK(GARMEN)	1	TH-50PHD6EX ⚠
	TQBC0600	INSTRUCTION BOOK(FRENCH)	1	TH-50PHD6EX ⚠
	TQBC0601	INSTRUCTION BOOK(ITALIAN)	1	TH-50PHD6EX ⚠
	TQBC0602	INSTRUCTION BOOK(SPANISH)	1	TH-50PHD6EX ⚠
	TQBC0603	INSTRUCTION BOOK(DUTCH)	1	TH-50PHD6EX ⚠
	TQBC0604	INSTRUCTION BOOK(DANISH)	1	TH-50PHD6EX ⚠
	TQBC0605	INSTRUCTION BOOK(SWEDISH)	1	TH-50PHD6EX ⚠
	TQBC0606	INSTRUCTION BOOK(ENGLISH)	1	TH-50PHD6BX ⚠
	TSXL139	CABLE	8	
	TSXL212	CABLE (D-C1)	2	
	TSXL222	CABLE (C-C)	4	
	TSXL223	CABLE	4	
	TSXL287	CABLE	8	
	TSXL290	CABLE (D-C4)	2	
10	TTEA0140	ESCUTCHEON	1	TH-50PHD6BX/EX/UY ⚠
10	TTEA0141	ESCUTCHEON	1	TH-50PHW6BX/EX ⚠
11	TTUA0735	REAR COVER	1	TH-50PHD6BX/EX ⚠
11	TTUA0739	REAR COVER	1	TH-50PHD6UY ⚠
11	TTUA0740	REAR COVER	1	TH-50PHW6BX/EX ⚠
12	TXFMZ010MHS	STAND BRACKET(LEFT)	1	
13	TXFMZ020MHS	STAND BRACKET(RIGTH)	1	
	TXJSPL0QMS	SPEAKER LEAD(LEFT)	1	
	TXJSPR0QMS	SPEAKER LEAD(RIGHT)	1	
	XTB4+10A	SCREW	23	
	XTBT964	SCREW	2	
	XTS3+10J	SCREW	1	
	XTV3+10J	SCREW	7	

	XTV3+6J	SCREW	2	
	XTW3+8T	SCREW	3	
	XVG3+J10	SCREW	18	
	XVG3+J12	SCREW	1	
	XYC3+FF8	SCREW	4	
	XYC4+FJ35FZ	SCREW	19	
	XYN3+F10	SCREW	7	
	XYN3+F10FZ	SCREW	10	
	XYN3+F8	SCREW	6	
	XYN4+E8	SCREW	1	
	XYN5+C20	SCREW	8	
14	XYN8+F20FZ	SCREW	4	
	XZBT6506	POLY BAG	1	

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17 Replacement Parts List

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17.1 Relpacement Parts List Notes

17.2 Electrical Replacement List

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17.1 Relpacement Parts List Notes

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Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item.
After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention.
After the end of this period, the assembly will no longer be available.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

Type Allowance

2. Capacitor

Example:

ECKF1H103ZF C 0.01UF, Z, 50V

Type Allowance

Type	Allowance
C : Carbon	F : ±1%
F : Fuse	G : ±2%
M : Metal Oxide	J : ±5%
Metal Film	K : ±10%
S : Solid	M : ±20%
W : Wire Wound	

Type	Allowance
C : Ceramic	C : ±0.25pF
E : Electrolytic	D : ±0.5pF
P : Polyester	F : ±1pF
Polyprop	G : ±3pF
lene	J : ±5pF
T : Tantalum	K : ±10pF
	L : ±15pF
	M : ±20pF
	P : +100%, -0%
	Z : +80%, -20%

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17.2 Electrical Replacement List

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C10	K1MN80B00002	CONNECTOR	1	
C11	K1MN20B00043	20P CONNECTOR	1	
C12	K1KA06A00183	6P CONNECTOR	1	
C13	K1KA08A00293	8P CONNECTOR	1	
C20,21	K1MN80B00002	CONNECTOR	2	
C22,23	K1MN20B00043	20P CONNECTOR	2	
C24,25	K1MN80B00002	CONNECTOR	2	
C31	K1MN80B00002	CONNECTOR	1	
C32	K1KA20A00180	20P CONNECTOR	1	
C33	K1MN20B00043	20P CONNECTOR	1	
C35	K1KA08A00293	8P CONNECTOR	1	
C41	K1MN80B00002	CONNECTOR	1	
C42	K1KA08A00293	8P CONNECTOR	1	
C43	K1MN20B00043	20P CONNECTOR	1	
C44	K1KA08A00232	8P CONNECTOR	1	
C50,51	K1MN80B00002	CONNECTOR	2	
C52,53	K1MN20B00043	20P CONNECTOR	2	
C54,55	K1MN80B00002	CONNECTOR	2	
C60	K1MN80B00002	CONNECTOR	1	
C61	K1MN20B00043	20P CONNECTOR	1	
C62	K1KA06A00183	6P CONNECTOR	1	
C401	F0CAF105A021	C 1UF, 250V	1	
C402	ECJ2XC1H391J	C 390PF, J, 50V	1	
C403	ECKCNA222MEB	C 2200PF, M	1	
C404	F0CAF105A021	C 1UF, 250V	1	
C407	EEUEB2W220B	E 22UF, 450V	1	
C408	F2A1H470A123	E 47UF, 50V	1	
C409	F0CAF105A021	C 1UF, 250V	1	
C410	F2A1H470A123	E 47UF, 50V	1	
C411	F2A1H100A123	E 10UF, 50V	1	
C412	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C413	F1J1C1050011	C 1UF, Z, 50V	1	

C416	F1J1V474A001	C 0.47UF, 35V	1	
C417	F2A1H100A123	E 10UF, 50V	1	
C419	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C421,22	ECJ2XB1H103K	C 0.01UF, K, 50V	2	
C423	ECJ2XB1H472K	C 4700PF, K, 50V	1	
C424,25	ECJ3YB1E105K	C 1UF, K, 25V	2	
C426	ECJ2XC1H471J	C 470PF, J, 50V	1	
C427	F1J1A1050002	C 1UF, Z, 50V	1	
C428	ECJ2XC1H221J	C 220PF, J, 50V	1	
C429,30	F1K2J1530002	C 0.15PF, J,630V	2	
C431	ECJ2XB1H102K	C 1000PF, K, 50V	1	
C432	F1J1C1050011	C 1UF, Z, 50V	1	
C436	F1J1C1050011	C 1UF, Z, 50V	1	
C440	F2A1H100A123	E 10UF, 50V	1	
C443,44	F1A3A102A040	C 1000PF, J, 1KV	2	
C445	F1J1C1050011	C 1UF, Z, 50V	1	
C446	F2B2W4710005	C 470UF, 450V	1	
C448	F2B2W4710005	C 470UF, 450V	1	
C449,50	F1A3A102A040	C 1000PF, J, 1KV	2	
C451	F1A3A101A040	C 100PF, J, 1KV	1	
C455	F1A3A221A040	E 220UF, 1KV	1	
C457	ECWH8203RHV	P 0.020PF, J, 8KV	1	
C458	ECWH8683RHV	P 0.068PF, J, 8KV	1	
C459	F1K2J1530002	C 0.15PF, J,630V	1	
C460,61	F1A3A331A039	E 330UF, 1KV	2	
C462	ECJ3YB1E105K	C 1UF, K, 25V	1	
C463	ECJ2XC1H220J	C 22UF, J, 50V	1	
C464	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C465	ECKCNA221KB7	C 220PF, M,	1	
C501,02	ECJ2XB1H103K	C 0.01UF, K, 50V	2	
C503,04	ECJ2XB1H104K	C 0.1UF, K, 50V	2	
C506-08	ECJ2XB1H103K	C 0.01UF, K, 50V	3	
C509	F2A1E101A097	E 100UF 25V	1	
C511	F1J1C1050011	C 1UF, Z, 50V	1	
C513,14	ECJ2XC1H471J	C 470PF, J, 50V	2	
C515	EEUFC1A102	E 1000UF, 10V	1	
C516	F1J1A1050002	C 1UF, Z, 50V	1	
C517	EEUFC1A221	E 220UF, 10V	1	
C518	F2A1E470A097	E 47UF, 25V	1	

C521	F2A1H100A123	E 10UF, 50V	1	
C522	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C523	F2A1E101A097	E 100UF 25V	1	
C524	EEUEB1H220SB	E 22UF, 50V	1	
C525	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C526	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C527	ECJ2XB1H102K	C 1000PF, K, 50V	1	
C528	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C529	F2A1E101A097	E 100UF 25V	1	
C530	ECJ2VB1H333K	C 0.033UF, K, 50V	1	
C531,32	ECJ2XB1H104K	C 0.1UF, K, 50V	2	
C534	ECJ2XC1H681J	C 680PF, J, 50V	1	
C535	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C536	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C537	ECJ2XB1H102K	C 1000PF, K, 50V	1	
C538	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C539	ECJ2VB1H333K	C 0.033UF, K, 50V	1	
C540	ECJ2XC1H152J	C 1500PF, J, 50V	1	
C541	F1J1C1050011	C 1UF, Z, 50V	1	
C544	F1J1C1050011	C 1UF, Z, 50V	1	
C546	F2A1E101A097	E 100UF 25V	1	
C547	ECJ2VB1H333K	C 0.033UF, K, 50V	1	
C549	F1J2E1030004	C 0.1PF, J,250V	1	
C550	F2A1E681A099	E 680UF, 25V	1	
C552	F1J1C1050011	C 1UF, Z, 50V	1	
C553,54	ECJ2XB1H104K	C 0.1UF, K, 50V	2	
C556	F2A1C152A126	E 1500UF, 16V	1	
C557	F2A1E681A099	E 680UF, 25V	1	
C558	F2B2D2220003	E 2200UF,@ 200V	1	
C559	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C560	ECA2AHG102	E 1000UF, 100V	1	
C561	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C562	F2B2D2220003	E 2200UF,@ 200V	1	
C565	F2A1E471A097	E 470UF, 25V	1	
C573	F1J1C1050011	C 1UF, Z, 50V	1	
C574	EEUFC0J122	E 1200UF, 6.3V	1	
C576	F2A1E470A097	E 47UF, 25V	1	
C577	F2A2A330A022	E 33UF, 100V	1	
C578	F2A1E470A097	E 47UF, 25V	1	

C579	ECJ2XB1H223K	C 0.022UF, K, 50V	1	
C580	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C581	ECJ2XB1H223K	C 0.022UF, K, 50V	1	
C583	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C585,86	ECJ2XB1H104K	C 0.1UF, K, 50V	2	
C587	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C598	F2A1E470A097	E 47UF, 25V	1	
C599	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C600,01	ECJ2XB1H103K	C 0.01UF, K, 50V	2	
C602	ECJ2XB1H102K	C 1000PF, K, 50V	1	
C603,04	ECJ2XB1H104K	C 0.1UF, K, 50V	2	
C605	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C606	ECJ2XB1H102K	C 1000PF, K, 50V	1	
C607	F1J1C1050011	C 1UF, Z, 50V	1	
C608,09	ECJ2XB1H103K	C 0.01UF, K, 50V	2	
C802	EEUFC1E471	E 470UF, 25V	1	
C803	EEUFC1E331	E 330UF, 25V	1	
C805	EEUFC1C102	E 1000UF, 16V	1	
C806	EEUFC1A102	E 1000UF, 10V	1	
C807	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C808,09	ECQB1H103JF	P 0.01UF, J, 50V	2	
C810	EEUFC1E561	E 560UF, 25V	1	
C811	ECQB1H103JF	P 0.01UF, J, 50V	1	
C812	ECQB1H104JF	P 0.1UF, J, 50V	1	
C813	ECQB1H473JF	P 0.047UF, J, 50V	1	
C814	EEUFC0J152	E 1500UF, 6.3V	1	
C815	ECQB1H104JF	P 0.1UF, J, 50V	1	
C816	ECQB1H682JF3	P 6800PF, J, 50V	1	
C901	ECQU2A105BN9	P 1UF, 250V	1	⚠
C904,05	ECKDNA471KB7	C 470PF, Z,	2	⚠
C906,07	ECQU2A224BN9	P 0.22UF, 250V	2	⚠
C908-11	ECKCNA221KB7	C 220PF, M,	4	⚠
C912	ECQU2A105MGA	P 1UF, 250V	1	⚠
C913	EETHC2W101J	C 4700PF, Z,450V	1	
C914	ECQE6223KF	P 0.022UF, K,400V	1	
C915	ECA1HHG100	E 10UF, 50V	1	
C916	ECA1VHG470	E 47UF, 35V	1	

C917	ECQV1H104JM	P 0.1UF, J, 50V	1	
C918	ECA1HHG330	E 33UF, 50V	1	
C919	ECKD3D102KBP	C 1000PF, K, 2KV	1	
C920	ECKCNA221KB7	C 220PF, M,	1	⚠
C921	ECKD3A221KBP	C 220PF, K, 1KV	1	
C922	EEUFC1E272	E 2700UF, 25V	1	
C923	EEUFC1E152	E 1500UF, 25V	1	
C924	ECA1HHG010	E 1UF, 50V	1	
C925	ECA1HHG100	E 10UF, 50V	1	
C951	EEVHB1C470	E 47UF, 16V	1	
C952	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C953-58	EEVHB1C470	E 47UF, 16V	6	
C959,60	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C961	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C962-64	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	
C965	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C966	EEVHB1C470	E 47UF, 16V	1	
C967,68	ECJ1VF1H103Z	C 0.01UF, Z, 50V	2	
C969	EEVHB1C470	E 47UF, 16V	1	
C970	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C971	EEVHB1C470	E 47UF, 16V	1	
C972	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C1001,02	ECJ1XC1H150J	C 15PF, J, 50V	2	
C1003	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C1004	EECS5R5H155	E 1.5UF, 5.5V	1	
C1530	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C2312	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C2313	ECA1HHG470	E 47UF, 50V	1	
C2314	ECA1EHG470	E 47UF, 25V	1	
C2350,51	TCUY1C225KBM	C 2.2UF, 16V	2	
C2352,53	ECA1HHG100	E 10UF, 50V	2	
C2354,55	ECA1VM470	E 47UF, 35V	2	
C2356,57	ECJ2XB1H102K	C 1000PF, K, 50V	2	
C2358,59	ECA1HM2R2	E 2.2UF, 50V	2	
C2360,61	ECJ2XC1H102J	C 1000PF, J, 50V	2	
C2362,63	ECA1EM471	E 470UF, 25V	2	
C2364,65	ECQV1H104JM	P 0.1UF, J, 50V	2	
C2366,67	ECQV1H225JM	P 2.2UF, J, 50V	2	

C2368,69	ECQV1H104JM	P 0.1UF, J, 50V	2	
C2370	ECA1VM470	E 47UF, 35V	1	
C2417	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C2419	ECA1HHG100	E 10UF, 50V	1	
C2422	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C2423	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C2426	ECJ2XB1H153K	C 0.015UF, K, 50V	1	
C2427	ECA1HHG100	E 10UF, 50V	1	
C2429	EEAGA1C101	E 100UF, 16V	1	
C2431	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C2433	ECJ2XB1H393K	C 0.039UF, K, 50V	1	
C2434	ECJ2XB1H223K	C 0.022UF, K, 50V	1	
C2435	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C2436	ECJ3VB1C104K	C 0.10UF, K, 16V	1	
C2437,38	EEAGA1C101	E 100UF, 16V	2	
C2440,41	ECJ3XF1C475Z	C 4.7UF, Z, 16V	2	
C2442	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C2450	ECA1HHG100	E 10UF, 50V	1	
C2451	ECA1HHG4R7	E 4.7UF, 50V	1	
C2452	ECJ2XB1H562K	C 5600PF, K, 50V	1	
C2453	ECJ2VF1H104Z	C 0.1UF, Z, 50V	1	
C2454	ECA1HHG4R7	E 4.7UF, 50V	1	
C2457	ECA1HHG4R7	E 4.7UF, 50V	1	
C2458	ECJ2XC1H102J	C 1000PF, J, 50V	1	
C2459	ECJ3VB1C104K	C 0.10UF, K, 16V	1	
C2460	ECJ2XB1H473K	C 0.047UF, K, 50V	1	
C2461	ECJ2XC1H102J	C 1000PF, J, 50V	1	
C2463	ECJ2XB1H473K	C 0.047UF, K, 50V	1	
C2466,67	ECJ3VB1C104K	C 0.10UF, K, 16V	2	
C2480	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C2484	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C3001	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C3002	ECJ2XB1E104K	C 0.1UF, K, 25V	1	
C3003	EEVHP1A100	E 10UF, 10V	1	
C3004	EEVHB1C470	E 47UF, 16V	1	(J)
C3004	EEVHP1A100	E 10UF, 10V	1	(HY)
C3005	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3005	ECJ2VF1C105Z	C 1UF, Z, 16V	1	(J)
C3006	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)

C3006	ECJ2VF1C105Z	C 1UF, Z, 16V	1	(J)
C3007	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3007	EEVHB1C470	E 47UF, 16V	1	(J)
C3008	ECJ1VF1H104Z	C 0.1UF, Z, 50V	1	
C3009	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(J)
C3009	EEVHB1C470	E 47UF, 16V	1	(HY)
C3010	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3011	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(J)
C3011	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3012	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	(J)
C3012	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3013	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	(J)
C3013	ECJ2VF1C105Z	C 1UF, Z, 16V	1	(HY)
C3014	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	(J)
C3014	EEVHB1C470	E 47UF, 16V	1	(HY)
C3015	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	(J)
C3015	ECJ1XC1H470J	C 47PF, J, 50V	1	(HY)
C3016	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	(J)
C3016	ECJ1XC1H220J	C 22PF, J, 50V	1	(HY)
C3017	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	(J)
C3017	ECJ1XC1H680J	C 68PF, J, 50V	1	(HY)
C3018	EEVHB1C470	E 47UF, 16V	1	(J)
C3019	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3019	ECJ3YB0J335K	C 33UF, J, 25V	1	(HY)
C3020	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3021	ECJ2VF1C105Z	C 1UF, Z, 16V	1	(HY)
C3021	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3022	ECJ1VF1A105Z	C 1UF, Z, 10V	1	(HY)
C3022-31	TCUY1C225KBM	C 2.2UF, 16V	10	(J)
C3032	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3040,41	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C3051-54	ECJ1XC1H561J	C 560PF, J, 50V	4	
C3055,56	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C3101	EEVHB0G221P	E 220UF, 4V	1	
C3102	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3103	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3104	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3104,05	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	(J)
C3105	EEVHB0G221P	E 220UF, 4V	1	(HY)

C3106	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3106	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3107	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3107	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3108	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3108	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3109	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3109	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3110	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3110	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3111	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3111	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3112	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3112	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3113	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3113	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3114	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3114	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	(J)
C3115	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3115	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3116	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3116	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3117	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3117	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3118	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3118	EEVHB1C470	E 47UF, 16V	1	(J)
C3119-21	ECJ1XB1C104K	C 0.1UF, Z, 16V	3	(J)
C3122	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3123-26	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C3127	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3128-02	ECJ1XB1C104K	C 0.1UF, Z, 16V	7	
C3134	EEVHB1C471	E 470UF, 16V	1	
C3135	ECJ1VB1C103K	C 0.01UF, K, 16V	1	(HY)
C3135	EEVHB1C471	E 470UF, 16V	1	(J)
C3136	ECJ1XC1H330J	C 33PF, J, 50V	1	(HY)
C3136	EEVHB1C471	E 470UF, 16V	1	(J)
C3137	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3138	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C3139	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	

C3140	ECJ1XC1H101J	C 100PF, J, 50V	1	
C3141	ECJ1XB0J105K	C 1UF, K, 16V	1	(HY)
C3141	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3142	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3142,43	TCUY1C225KBM	C 2.2UF, 16V	2	(J)
C3144	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3144	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3146	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3147	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C3148	ECJ1XB0J105K	C 1UF, K, 16V	1	
C3149	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3150	ECJ1VB1C103K	C 0.01UF, K, 16V	1	
C3151	ECJ1XC1H330J	C 33PF, J, 50V	1	
C3152	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3153	ECJ1XC1H101J	C 100PF, J, 50V	1	
C3154	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3156	ECJ1XB0J105K	C 1UF, K, 16V	1	
C3157	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C3158	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3159	EEVHB0G221P	E 220UF, 4V	1	
C3160,61	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C3162-66	ECJ1VF1A105Z	C 1UF, Z, 10V	5	
C3167-78	ECJ1XB1C104K	C 0.1UF, Z, 16V	12	
C3179	EEVHB0G221P	E 220UF, 4V	1	
C3180-83	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C3184	EEVHB0G221P	E 220UF, 4V	1	
C3185	ECJ1XC1H060D	C 6PF, D, 50V	1	
C3186	ECJ1XC1H470J	C 47PF, J, 50V	1	
C3187	EEVHB0G221P	E 220UF, 4V	1	
C3188	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3200	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3201	TCUY1C105ZFN	C 1UF, 16V	1	
C3202	ECJ1VF1A105Z	C 1UF, Z, 10V	1	(HY)
C3202	TCUY1C105ZFN	C 1UF, 16V	1	(J)
C3203	ECJ1VF1A105Z	C 1UF, Z, 10V	1	(HY)
C3203	ECJ2VF1E104Z	C 0.1UF, Z, 25V	1	(J)
C3204	ECJ1VF1A105Z	C 1UF, Z, 10V	1	(HY)
C3204	TCUY1C105ZFN	C 1UF, 16V	1	(J)
C3205	ECJ1VF1A105Z	C 1UF, Z, 10V	1	(HY)

C3205	TCUY1C105ZFN	C 1UF, 16V	1	(J)
C3206	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3207	EEVHB0G221P	E 220UF, 4V	1	
C3208-14	ECJ1VF1A105Z	C 1UF, Z, 10V	7	
C3216,17	ECJ1VF1A105Z	C 1UF, Z, 10V	2	
C3218	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3219	EEVHB0J101P	E 100UF, 6.3V	1	
C3251,52	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C3253	ECJ1XB1H102K	C 1000UF, Z, 50V	1	(HY)
C3253	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3254	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3254	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3255	ECJ1XB1H102K	C 1000UF, Z, 50V	1	(HY)
C3255	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3256	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3256	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3257	ECJ1XB1H102K	C 1000UF, Z, 50V	1	(HY)
C3257	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3258	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3258	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3259	ECJ1XB1H102K	C 1000UF, Z, 50V	1	(HY)
C3259	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3260	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3260	TCUY1C225KBM	C 2.2UF, 16V	1	(J)
C3261	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	(J)
C3261	EEVHB0G221P	E 220UF, 4V	1	(HY)
C3262	ECJ1XB1H102K	C 1000UF, Z, 50V	1	(HY)
C3262	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3263	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3263	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3264	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3264	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	(J)
C3265	EEVHB0G221P	E 220UF, 4V	1	(HY)
C3265	EEVHB1C470	E 47UF, 16V	1	(J)
C3266	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	(HY)
C3266-68	EEVHB1C471	E 470UF, 16V	3	(J)
C3308	EEVHB0G221P	E 220UF, 4V	1	
C3309	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3311,12	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	

C3313	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3315	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3316	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C3317	ECJ1VF1A105Z	C 1UF, Z, 10V	1	
C3318-21	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C3322,23	EEVHB0G221P	E 220UF, 4V	2	
C3324	EEVHB0J101P	E 100UF, 6.3V	1	
C3325,26	EEVHB1C470	E 47UF, 16V	2	
C3327-30	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C3401	EEVHP1C100R	E 10UF, 16V	1	
C3404	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C3405	EEVHB1C470	E 47UF, 16V	1	
C3409	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C3507,08	ECJ3XB0J106M	C 10UF, M,6.3V	2	
C3510,11	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C3520	EEVHB1C470	E 47UF, 16V	1	
C3521	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	
C3523	EEVHB1C470	E 47UF, 16V	1	(HX)
C3523	EEVHB1C470	E 47UF, 16V	1	(HY)
C3524	ECJ2VF1C104Z	C 0.1UF, Z, 16V	1	(HY)
C3524	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	(HX)
C3525,26	ECJ2VF1C104Z	C 0.1UF, Z, 16V	2	
C3527	TCUY0J685MBM	C 6.8UF, 6.3V	1	
C3550	ECJ2VF1H103Z	C 0.01UF, Z, 50V	1	
C3551	EEVHB1C470	E 47UF, 16V	1	
C3561,62	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C6400	ECJ2XB1H222K	C 2200PF, K, 50V	1	
C6401-06	TCUY1C105ZFN	C 1UF, 16V	6	
C6408	ECJ2XB1H222K	C 2200PF, K, 50V	1	
C6409,10	F1L2E1040002	E 1000UF, 25V	2	
C6417,18	F1L2E1040002	E 1000UF, 25V	2	
C6420	ECJ2XB1H222K	C 2200PF, K, 50V	1	
C6421-26	TCUY1C105ZFN	C 1UF, 16V	6	
C6427,28	F1L2E1040002	E 1000UF, 25V	2	
C6430	ECJ2XB1H222K	C 2200PF, K, 50V	1	
C6437,38	F1L2E1040002	E 1000UF, 25V	2	
C6452	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C6453	TCUY1C105ZFN	C 1UF, 16V	1	
C6454	ECJ2XB1H103K	C 0.01UF, K, 50V	1	

C6455	EEUFC1E221	E 220UF, 25V	1	
C6456	ECA2CM101	E 100UF, 160V	1	
C6458	ECJ4XB1E475M	C 4.7UF, M, 25V	1	
C6459	EEUFC1E470	E 47UF, 25V	1	
C6461	ECA1HM101	E 100UF, 50V	1	
C6462,63	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6465	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C6466,67	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6472	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C6473	TCUY1C105ZFN	C 1UF, 16V	1	
C6474	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C6475	EEUFC1E221	E 220UF, 25V	1	
C6476	ECA2CM101	E 100UF, 160V	1	
C6490,91	ECJ3XK2J102K	C 1000PF, K,630V	2	
C6492	EEUED2V100	E 10UF,	1	
C6493	ECJ3XB2J222K	C 2200PF, K,630V	1	
C6501-08	TCUY1C105ZFN	C 1UF, 16V	8	
C6509	ECJ2XC1H102J	C 1000PF, J, 50V	1	
C6510-12	ECJ4XB1E475M	C 4.7UF, M, 25V	3	
C6513	ECA2CM101	E 100UF, 160V	1	
C6514	TCUY1C105ZFN	C 1UF, 16V	1	
C6515,16	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6517	TCUY1C105ZFN	C 1UF, 16V	1	
C6521	ECJ4XB1E475M	C 4.7UF, M, 25V	1	
C6522	ECA1VM470	E 47UF, 35V	1	
C6524,25	ECJ3FC2D102J	C 1000PF, J,200V	2	
C6526	ECA2EHG470	E 47UF, 250V	1	
C6532	ECJ2XB1H472K	C 4700PF, K, 50V	1	
C6533	ECJ2VF1C105Z	C 1UF, Z, 16V	1	
C6534	ECJ2XB1H103K	C 0.01UF, K, 50V	1	
C6535	EEUFC1E221	E 220UF, 25V	1	
C6536	ECA1HM221	E 220UF, 50V	1	
C6537	ECJ2XB1H104K	C 0.1UF, K, 50V	1	
C6541,42	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6543-45	ECJ3FC2D102J	C 1000PF, J,200V	3	
C6546	ECJ4XB1E475M	C 4.7UF, M, 25V	1	
C6550	ECA2CM101	E 100UF, 160V	1	
C6561-68	ECWF2205JS	P 2UF, 250V	8	
C6571	TCUY1C105ZFN	C 1UF, 16V	1	

C6574-78	TCUY1C105ZFN	C 1UF, 16V	5	
C6580,81	TCUY1C105ZFN	C 1UF, 16V	2	
C6584	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6585	TCUY1C105ZFN	C 1UF, 16V	1	
C6598	ECA2CM101	E 100UF, 160V	1	
C6600-06	F2A2D221A022	E 220UF, 200V	7	
C6607,08	ECWF2205JS	P 2UF, 250V	2	
C6609	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6610	ECA1EM471	E 470UF, 25V	1	
C6611-20	F1K2J222A014	C 2200UF, K,6.3V	10	
C6621,22	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6623,24	TCUY1C105ZFN	C 1UF, 16V	2	
C6625	ECJ4XB1E475M	C 4.7UF, M, 25V	1	
C6626	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6627,28	EEUFC1E470	E 47UF, 25V	2	
C6629	F2A2D1510004	E 150UF, 200V	1	
C6639	F1L2E1040002	E 1000UF, 25V	1	
C6640	TCUY1C105ZFN	C 1UF, 16V	1	
C6641,42	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6650,51	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6652	TCUY1C105ZFN	C 1UF, 16V	1	
C6680	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C6681,82	TCUY1C105ZFN	C 1UF, 16V	2	
C6683,84	EEUFC1E470	E 47UF, 25V	2	
C6701-08	ECWF2205JS	P 2UF, 250V	8	
C6709	F1L2E1040002	E 1000UF, 25V	1	
C6711-14	F2A2D221A022	E 220UF, 200V	4	
C6715,16	ECWF2205JS	P 2UF, 250V	2	
C6717	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6718,19	EEUFC1E221	E 220UF, 25V	2	
C6721	ECA1EM101	E 100UF, 25V	1	
C6722,23	ECA2CM101	E 100UF, 160V	2	
C6724	F2A2D221A022	E 220UF, 200V	1	
C6726	EEUFC1E561	E 560UF, 25V	1	
C6727	F1K2J222A014	C 2200UF, K,6.3V	1	
C6729	F1K2J222A014	C 2200UF, K,6.3V	1	
C6731	F1K2J222A014	C 2200UF, K,6.3V	1	
C6733	F1K2J222A014	C 2200UF, K,6.3V	1	
C6735	F1K2J222A014	C 2200UF, K,6.3V	1	

C6737	F1K2J222A014	C 2200UF, K,6.3V	1	
C6739	F1K2J222A014	C 2200UF, K,6.3V	1	
C6741	F1K2J222A014	C 2200UF, K,6.3V	1	
C6743	F1K2J222A014	C 2200UF, K,6.3V	1	
C6745	F1K2J222A014	C 2200UF, K,6.3V	1	
C6747,48	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6749	TCUY1C105ZFN	C 1UF, 16V	1	
C6750,51	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6752	TCUY1C105ZFN	C 1UF, 16V	1	
C6753	ECJ4XB1E475M	C 4.7UF, M, 25V	1	
C6755	TCUY1C105ZFN	C 1UF, 16V	1	
C6756,57	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6758	ECJ3YB1E105K	C 1UF, K, 25V	1	
C6759,60	ECJ4XB1E475M	C 4.7UF, M, 25V	2	
C6761-64	TCUY1C105ZFN	C 1UF, 16V	4	
C6767,68	F2A2D221A022	E 220UF, 200V	2	
C6771	F2A2D221A022	E 220UF, 200V	1	
C6772,73	ECJ3YB1E105K	C 1UF, K, 25V	2	
C6784	ECJ3XB2J222K	C 2200PF, K,630V	1	
C6801	ECA2AHG101	E 100UF, 100V	1	
C6803	ECA2AHG101	E 100UF, 100V	1	
C6807	TCUY1C105ZFN	C 1UF, 16V	1	
C6808	F1L2E1040002	E 1000UF, 25V	1	
C6809,10	EEUFC1E221	E 220UF, 25V	2	
C6811	TCUY1C105ZFN	C 1UF, 16V	1	
C6812,13	F1L1E4750004	C 4.7UF, 25V	2	
C6815,16	ECWF2205JS	P 2UF, 250V	2	
C6817,18	F1L1E4750004	C 4.7UF, 25V	2	
C6820	TCUY1C105ZFN	C 1UF, 16V	1	
C6821,22	F1L1E4750004	C 4.7UF, 25V	2	
C6827	TCUY1C105ZFN	C 1UF, 16V	1	
C6828-31	ECJ2XB1H103K	C 0.01UF, K, 50V	4	
C6832	EEUFC1E221	E 220UF, 25V	1	
C6833	ECA2AHG101	E 100UF, 100V	1	
C6840	F1L2E1040002	E 1000UF, 25V	1	
C6841	ECA2AHG101	E 100UF, 100V	1	
C6901	ECA2AHG101	E 100UF, 100V	1	
C6902	EEUFC1E221	E 220UF, 25V	1	
C6903	ECA2AHG101	E 100UF, 100V	1	

C6907	TCUY1C105ZFN	C 1UF, 16V	1	
C6908	F1L2E1040002	E 1000UF, 25V	1	
C6910	EEUFC1E221	E 220UF, 25V	1	
C6911	TCUY1C105ZFN	C 1UF, 16V	1	
C6912,13	F1L1E4750004	C 4.7UF, 25V	2	
C6915,16	ECWF2205JS	P 2UF, 250V	2	
C6917,18	F1L1E4750004	C 4.7UF, 25V	2	
C6920	TCUY1C105ZFN	C 1UF, 16V	1	
C6921,22	F1L1E4750004	C 4.7UF, 25V	2	
C6927	TCUY1C105ZFN	C 1UF, 16V	1	
C6928-31	ECJ2XB1H103K	C 0.01UF, K, 50V	4	
C6932	EEUFC1E221	E 220UF, 25V	1	
C6933	ECA2AHG101	E 100UF, 100V	1	
C6940	F1L2E1040002	E 1000UF, 25V	1	
C6941	ECA2AHG101	E 100UF, 100V	1	
C7101,02	TCUY1C105ZFN	C 1UF, 16V	2	
C7103-06	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	4	
C7107-10	ECJ1XC1H101J	C 100PF, J, 50V	4	
C7111-14	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	4	
C7117,18	TCUY1C105ZFN	C 1UF, 16V	2	
C7121	TCUY1C105ZFN	C 1UF, 16V	1	
C7122	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7123-26	TCUY1C105ZFN	C 1UF, 16V	4	
C7127-30	ECJ3XB0J106M	C 10UF, M,6.3V	4	
C7131	TCUY1C105ZFN	C 1UF, 16V	1	
C7132	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7201	TCUY1C105ZFN	C 1UF, 16V	1	
C7202	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7203	TCUY1C105ZFN	C 1UF, 16V	1	
C7206	TCUY1C105ZFN	C 1UF, 16V	1	
C7208	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7210	TCUY1C105ZFN	C 1UF, 16V	1	
C7211,12	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	2	
C7213	TCUY1C105ZFN	C 1UF, 16V	1	
C7214	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7215,16	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	2	
C7217	TCUY1C105ZFN	C 1UF, 16V	1	
C7218	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7219,20	ECJ1XC1H101J	C 100PF, J, 50V	2	

C7221,22	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	2	
C7223	TCUY1C105ZFN	C 1UF, 16V	1	
C7224	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7225	TCUY1C105ZFN	C 1UF, 16V	1	
C7301	TCUY1C105ZFN	C 1UF, 16V	1	
C7302	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7303	TCUY1C105ZFN	C 1UF, 16V	1	
C7304	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7305-08	TCUY1C105ZFN	C 1UF, 16V	4	
C7309-12	ECJ3XB0J106M	C 10UF, M,6.3V	4	
C7317,18	TCUY1C105ZFN	C 1UF, 16V	2	
C7319-22	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	4	
C7323-26	ECJ1XC1H101J	C 100PF, J, 50V	4	
C7327-30	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	4	
C7331,32	TCUY1C105ZFN	C 1UF, 16V	2	
C7401,02	TCUY1C105ZFN	C 1UF, 16V	2	
C7403	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7404	TCUY1C105ZFN	C 1UF, 16V	1	
C7406	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7408-11	TCUY1C105ZFN	C 1UF, 16V	4	
C7412-15	ECJ3XB0J106M	C 10UF, M,6.3V	4	
C7418,19	TCUY1C105ZFN	C 1UF, 16V	2	
C7420-23	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	4	
C7424-27	ECJ1XC1H101J	C 100PF, J, 50V	4	
C7428-31	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	4	
C7432,33	TCUY1C105ZFN	C 1UF, 16V	2	
C7501	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7502	TCUY1C105ZFN	C 1UF, 16V	1	
C7507,08	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	2	
C7509	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7510,11	TCUY1C105ZFN	C 1UF, 16V	2	
C7512	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7513,14	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	2	
C7515	TCUY1C105ZFN	C 1UF, 16V	1	
C7516	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7517	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7518	TCUY1C105ZFN	C 1UF, 16V	1	
C7519,20	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	2	
C7521	TCUY1C105ZFN	C 1UF, 16V	1	

C7522	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7523	TCUY1C105ZFN	C 1UF, 16V	1	
C7524	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7601,02	TCUY1C105ZFN	C 1UF, 16V	2	
C7603-06	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	4	
C7607-10	ECJ1XC1H101J	C 100PF, J, 50V	4	
C7611-14	ECJ3XB2A104K	C 0.10UF, Z, 6.3V	4	
C7615,16	TCUY1C105ZFN	C 1UF, 16V	2	
C7621	TCUY1C105ZFN	C 1UF, 16V	1	
C7622	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C7623-26	TCUY1C105ZFN	C 1UF, 16V	4	
C7627-30	ECJ3XB0J106M	C 10UF, M,6.3V	4	
C7631	ECJ1XC1H101J	C 100PF, J, 50V	1	
C7632	TCUY1C105ZFN	C 1UF, 16V	1	
C8001,02	EEVHB1C470	E 47UF, 16V	2	
C8003,04	ECJ1VF1H104Z	C 0.1UF, Z, 50V	2	
C8005,06	ECJ1VF1H103Z	C 0.01UF, Z, 50V	2	
C8007,08	ECJ1VB1H471K	C 470PF, K, 50V	2	
C8009	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C8011	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C8013,14	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C8015	ECJ3YF1A106Z	C 10UF, Z, 10V	1	
C8016	ECJ3YB1A475K	C 0.047UF, K, 10V	1	
C8017	ECJ3YF1A106Z	C 10UF, Z, 10V	1	
C8018	ECJ3YB1A475K	C 0.047UF, K, 10V	1	
C8019,20	ECJ1VB1H103K	C 0.01UF, K, 50V	2	
C8021,22	ECJ3VB1C474K	C 0.47UF, K, 16V	2	
C8023-26	ECJ1VB1H103K	C 0.01UF, K, 50V	4	
C8027	TCUY1C225KBM	C 2.2UF, 16V	1	
C8029	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C8030	EEVHB1C470	E 47UF, 16V	1	
C8031	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C8032	EEVHB1C470	E 47UF, 16V	1	
C8033,34	ECJ1XC1H102J	C 1000PF, J, 50V	2	
C8035	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C8036,37	ECJ1XC1H101J	C 100PF, J, 50V	2	
C8038,39	ECJ2XC1H102J	C 1000PF, J, 50V	2	
C8041	TCUY1C225KBM	C 2.2UF, 16V	1	
C8043	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	

C8045,46	ECJ2VF1C105Z	C 1UF, Z, 16V	2	
C8049,50	ECJ2VF1H103Z	C 0.01UF, Z, 50V	2	
C8051	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C8070	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C8071	EEVHB1C470	E 47UF, 16V	1	
C8072,73	ECJ3YF1A106Z	C 10UF, Z, 10V	2	
C9001	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9002	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9003	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9004	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9005,06	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9007-10	EEVHB0G221P	E 220UF, 4V	4	
C9011-14	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C9016,17	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C9020	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9022	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9023	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9027	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9028	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9029	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9030,31	ECJ3XB0J106M	C 10UF, M,6.3V	2	
C9032,33	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9034,35	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C9036,37	ECJ3XB0J106M	C 10UF, M,6.3V	2	
C9038,39	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9040	ECJ2VB1E473K	C 0.047UF, K, 25V	1	
C9041	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9042,43	ECJ2VB1E473K	C 0.047UF, K, 25V	2	
C9044	ECJ1XB1H102K	C 1000UF, Z, 50V	1	
C9045,46	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9048,49	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9050	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9051	ECJ1XB1C393K	C 0.039UF, K, 16V	1	
C9052	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9053	ECJ1VB1H392K	C 3900PF, K, 50V	1	
C9054-56	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	
C9057	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9058	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9059	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	

C9060	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9061,62	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9063-66	EEVHB0G221P	E 220UF, 4V	4	
C9067-70	ECJ1XB1C104K	C 0.1UF, Z, 16V	4	
C9072,73	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C9076,77	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9078	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9080	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9084	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9085	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9086	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9087	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9088,89	ECJ3XB0J106M	C 10UF, M,6.3V	2	
C9090,91	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9092,93	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C9094,95	ECJ3XB0J106M	C 10UF, M,6.3V	2	
C9096,97	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9098	ECJ2VB1E473K	C 0.047UF, K, 25V	1	
C9099	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9100,01	ECJ2VB1E473K	C 0.047UF, K, 25V	2	
C9102	ECJ1XB1H102K	C 1000UF, Z, 50V	1	
C9103	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9105-07	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	
C9108	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9109	ECJ1XB1C393K	C 0.039UF, K, 16V	1	
C9110	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9111	ECJ1VB1H392K	C 3900PF, K, 50V	1	
C9112-14	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	
C9151	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9152	EEVHB0J330	E 33UF, 6.3V	1	
C9153	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9154	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9155	EEVHB1C470	E 47UF, 16V	1	
C9156	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9157-60	ECJ1XF1C104Z	C 0.1UF, Z, 16V	4	
C9161	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9162	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9163-70	ECJ1XF1C104Z	C 0.1UF, Z, 16V	8	
C9172-74	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	

C9175	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9176-82	ECJ1XF1C104Z	C 0.1UF, Z, 16V	7	
C9187	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9191	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C9192	TCUY1C105ZFN	C 1UF, 16V	1	
C9195	TCUY1C105ZFN	C 1UF, 16V	1	
C9196	ECJ3VB1C104K	C 0.10UF, K, 16V	1	
C9197	ECJ2VB1E563K	C 0.056UF, K, 25V	1	
C9198	ECJ2VB1C104K	C 0.1UF, K, 16V	1	
C9199,00	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9301	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C9302	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9303	EEVHB1C470	E 47UF, 16V	1	
C9304	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9305	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9307	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9308	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C9309	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9310	ECJ1XC1H330J	C 33PF, J, 50V	1	
C9311	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9312,13	ECJ1XC1H330J	C 33PF, J, 50V	2	
C9314,15	ECJ3XF1C475Z	C 4.7UF, Z, 16V	2	
C9316,17	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9318	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9319	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9321	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9323	ECJ1XC1H101J	C 100PF, J, 50V	1	
C9324	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9325	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9327	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9328-30	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	
C9331	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9332-35	ECJ1XF1C104Z	C 0.1UF, Z, 16V	4	
C9338-46	ECJ1XF1C104Z	C 0.1UF, Z, 16V	9	
C9347	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9449	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9450	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9453	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9454,55	ECJ3XF1C475Z	C 4.7UF, Z, 16V	2	

C9465	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9466	EEVHB0G221P	E 220UF, 4V	1	
C9467	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9469	EEVHB0G221P	E 220UF, 4V	1	
C9470	ECJ1XC1H101J	C 100PF, J, 50V	1	
C9471	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9472	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9474	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9475-77	ECJ1XF1C104Z	C 0.1UF, Z, 16V	3	
C9478	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9479-82	ECJ1XF1C104Z	C 0.1UF, Z, 16V	4	
C9485-93	ECJ1XF1C104Z	C 0.1UF, Z, 16V	9	
C9494,95	ECJ3XF1C475Z	C 4.7UF, Z, 16V	2	
C9496,97	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9498	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9499	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9596-99	ECJ1VF1H103Z	C 0.01UF, Z, 50V	4	
C9601-09	ECJ1XF1C104Z	C 0.1UF, Z, 16V	9	
C9611	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9612	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9613	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C9615-25	ECJ1XF1C104Z	C 0.1UF, Z, 16V	11	
C9629-38	ECJ1XF1C104Z	C 0.1UF, Z, 16V	10	
C9640,41	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9700,01	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9702	EEVHB1C470	E 47UF, 16V	1	
C9703	ECJ1XC1H101J	C 100PF, J, 50V	1	
C9705	ECJ1XF1H102Z	C 1000PF, Z, 50V	1	
C9706,07	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9708-10	EEVHB1C470	E 47UF, 16V	3	
C9712-17	ECJ1XC1H101J	C 100PF, J, 50V	6	
C9718	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9719	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9720	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9722,23	ECJ1XC1H100D	C 10PF, D, 50V	2	
C9724	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9725	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9726	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9727,28	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	

C9729	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9730-33	ECJ1XF1C104Z	C 0.1UF, Z, 16V	4	
C9737	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9740,41	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9742	EEVHB1C470	E 47UF, 16V	1	
C9743	TCUY1C105ZFN	C 1UF, 16V	1	
C9748,49	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9750	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9751,52	ECJ1VF1H103Z	C 0.01UF, Z, 50V	2	
C9753,54	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9755,56	ECJ1XF1H102Z	C 1000PF, Z, 50V	2	
C9759	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9760	ECJ1VB1C563K	C 0.056UF, K, 16V	1	
C9761,62	ECJ1XC1H330J	C 33PF, J, 50V	2	
C9765	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9766	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9767,68	TCUY1C105ZFN	C 1UF, 16V	2	
C9769	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9774,75	ECJ1XC1H330J	C 33PF, J, 50V	2	
C9800	EEVHB0G221	E 220UF, 4V	1	
C9801	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9803	ECJ3YB1A475K	C 0.047UF, K, 10V	1	
C9804	ECJ2XB1E104K	C 0.1UF, K, 25V	1	
C9805	ECJ2XC1H222J	C 2200PF, J, 50V	1	
C9806	ECJ1XF1C104Z	C 0.1UF, Z, 16V	1	
C9951-53	EEVHB1C470	E 47UF, 16V	3	
C9954,55	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9956	ECJ1VF1H103Z	C 0.01UF, Z, 50V	1	
C9957	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9958,59	F2H1E221A007	E 2.2UF, 25V	2	
C9960	ECJ3VB1C104K	C 0.10UF, K, 16V	1	
C9961	EEFUD0G121ER	120UF	1	
C9964,65	ECJ1XF1C104Z	C 0.1UF, Z, 16V	2	
C9966	EEVHB0G221P	E 220UF, 4V	1	
C9967	ECJ3XB0J106M	C 10UF, M,6.3V	1	
C9968	EEVHB1C470	E 47UF, 16V	1	
C9969	ECJ3XF1C475Z	C 4.7UF, Z, 16V	1	
C9970	ECJ2XB1E104K	C 0.1UF, K, 25V	1	
C9971	ECJ2XC1H222J	C 2200PF, J, 50V	1	

CA1-11	K1MN48A00002	CONNECTOR	11	
CB1-11	K1MN48A00002	CONNECTOR	11	
D3	K1KA40A00140	40P CONNECTOR	1	
D4	K1KA12A00227	12P CONNECTOR	1	
D5	K1KA31A00003	31P CONNECTOR	1	
D6	K1KA21A00007	21P CONNECTOR	1	
D10	K1KA12A00254	12P CONNECTOR	1	
D12	K1KA07A00189	7P CONNECTOR	1	
D20	K1KA20A00180	20P CONNECTOR	1	
D25	K1KA08A00293	8P CONNECTOR	1	
D27	K1KA09A00077	9P CONNECTOR	1	
D31-34	K1MN80B00002	CONNECTOR	4	
D401	B0FBBR000020	DIODE	1	
D402	MA4082M	ZENER DIODE	1	
D404	S1WBA80Z	DIODE	1	
D408	MA4180M	ZENER DIODE	1	
D409	B0HAMM000072	DIODE	1	
D410	MA188	DIODE	1	
D411	B0BB17000006	DIODE	1	
D412	MA165	DIODE	1	
D414	MA165	DIODE	1	
D415	B0JAME000081	DIODE	1	
D418	MA4082M	ZENER DIODE	1	
D419,20	B0HBSR000005	DIODE	2	
D421	MA4150M	ZENER DIODE	1	
D423-26	B0JAME000081	DIODE	4	
D431	RB520S30TE61	DIODE	1	
D433,34	MA4051NM	ZENER DIODE	2	
D503,04	MA165	DIODE	2	
D505,06	B0JAME000081	DIODE	2	
D507	MA165	DIODE	1	
D510	B0HAMM000072	DIODE	1	
D511	B0JAME000078	DIODE	1	
D513	MA4100M	ZENER DIODE	1	
D515	MA4056M	ZENER DIODE	1	
D517-20	MA165	DIODE	4	

D521	MA188	DIODE	1	
D528,29	MA153	DIODE	2	
D530	MA4100M	ZENER DIODE	1	
D531	B0HDRM000001	DIODE	1	
D532	MA3J142D0L	DIODE	1	
D533,34	MA752A	DIODE	2	
D535	MA188	DIODE	1	
D536	MA752A	DIODE	1	
D537	B0HBRP000006	DIODE	1	
D538	MA4051NM	ZENER DIODE	1	
D539	B0HBRP000006	DIODE	1	
D540,41	MA188	DIODE	2	
D543-45	MA3200	ZENER DIODE	3	
D546	B0JCND000005	DIODE	1	
D547	MA3150M	ZENER DIODE	1	
D548	MA4075M	ZENER DIODE	1	
D549	MA188	DIODE	1	
D550	MA4068M	ZENER DIODE	1	
D551	MA4075M	ZENER DIODE	1	
D552	MA4051NM	ZENER DIODE	1	
D553	MA165	DIODE	1	
D554	ERA15-01V5	DIODE	1	
D555	MA4075M	ZENER DIODE	1	
D557	MA111	DIODE	1	
D561	MA3075MTX	ZENER DIODE	1	
D563,64	MA111	DIODE	2	
D565	B0JAME000081	DIODE	1	
D802,03	M1FS4	DIODE	2	
D804	B0JCPD000010	DIODE	1	
D806,07	B0BC6R8A0010	DIODE	2	
D901	ERZV10V621P2	VARISTOR	1	⚠
D902	D4SB80Z	DIODE	1	⚠
D903	EG01C	DIODE	1	
D904	B0HAMM000072	DIODE	1	
D906	TMPG10G3	DIODE	1	
D907	PC123FY2	PHOTO COUPLER	1	⚠
D920	B0HFRJ000012	DIODE	1	
D921	B0BA02000024	DIODE	1	

D922	MA165	DIODE	1	
D923	LNJ201LPQJA	LED	1	
D1001	MA111	DIODE	1	
D1550	LNJ107W5PRW	LED	1	
D1551-53	MA8056M	ZENER DIODE	3	
D2301,02	M1FS4	DIODE	2	
D2308	MA152	DIODE	1	
D2316,17	M1FS4	DIODE	2	
D3001	MA111	DIODE	1	
D3001	MA729	DIODE	1	
D3002	MA3100M	ZENER DIODE	1	
D3003,04	MA111	DIODE	2	
D3021	MA111	DIODE	1	
D3024	MA111	DIODE	1	
D3351,52	MA153	DIODE	2	
D3501-04	MA3056M	ZENER DIODE	4	
D3507-10	MA8160H	ZENER DIODE	4	
D6401,02	MA8056H	ZENER DIODE	2	
D6408,09	D1FL40F4063	DIODE	2	
D6411,12	MA8056H	ZENER DIODE	2	
D6418,19	D1FL40F4063	DIODE	2	
D6433	MA111	DIODE	1	
D6435	MA111	DIODE	1	
D6436	B0JCKG000001	DIODE	1	
D6451	M1FS4	DIODE	1	
D6453	MA111	DIODE	1	
D6455	MA111	DIODE	1	
D6456	D1FL40F4063	DIODE	1	
D6459	MA111	DIODE	1	
D6460,61	B0HCKS000001	DIODE	2	
D6463	MA8056H	ZENER DIODE	1	
D6465,66	MA8330M	ZENER DIODE	2	
D6468	MA111	DIODE	1	
D6470	MA111	DIODE	1	
D6473	MA111	DIODE	1	
D6475	MA111	DIODE	1	
D6476	D1FL40F4063	DIODE	1	
D6477	MA111	DIODE	1	
D6478	B0HCKS000001	DIODE	1	

D6479	MA111	DIODE	1	
D6481,82	MA8330M	ZENER DIODE	2	
D6483-90	MA8056H	ZENER DIODE	8	
D6491,92	D1FL40F4063	DIODE	2	
D6493	MA111	DIODE	1	
D6495	B0HCKS000001	DIODE	1	
D6497-99	M1FS4	DIODE	3	
D6509	MA111	DIODE	1	
D6510	M1FS4	DIODE	1	
D6511	M1FL20UF4063	DIODE	1	
D6512-14	MA111	DIODE	3	
D6515,16	MA8240MTX	ZENER DIODE	2	
D6520	MA111	DIODE	1	
D6521	D1FL40F4063	DIODE	1	
D6522	MA111	DIODE	1	
D6523	D1FL40F4063	DIODE	1	
D6524	MA8051L	ZENER DIODE	1	
D6525	MA111	DIODE	1	
D6526	M1FL20UF4063	DIODE	1	
D6541	B0HCKS000001	DIODE	1	
D6542	MA111	DIODE	1	
D6543	MA8051L	ZENER DIODE	1	
D6544	MA111	DIODE	1	
D6545	MA8051L	ZENER DIODE	1	
D6546-48	MA8330M	ZENER DIODE	3	
D6549,50	MA111	DIODE	2	
D6552	M1FS4	DIODE	1	
D6553	MA111	DIODE	1	
D6570	M1FL20UF4063	DIODE	1	
D6572	D1FL40F4063	DIODE	1	
D6582	MA8051L	ZENER DIODE	1	
D6583	LNJ201LPQJA	LED	1	
D6584	MA111	DIODE	1	
D6585,86	MA8330M	ZENER DIODE	2	
D6600	D1FL40F4063	DIODE	1	
D6605-10	M1FS4	DIODE	6	
D6611-14	D1FL40F4063	DIODE	4	
D6615-18	B0HBSN000007	DIODE	4	
D6623	B0HBSN000007	DIODE	1	

D6627	B0HBSN000007	DIODE	1	
D6631,32	D1FL40F4063	DIODE	2	
D6633,34	M1FS4	DIODE	2	
D6649	D1FL40F4063	DIODE	1	
D6650	B0HBSN000007	DIODE	1	
D6651	D1FL40F4063	DIODE	1	
D6701	B0HBSN000007	DIODE	1	
D6710	D1FL40F4063	DIODE	1	
D6711,12	B0HBSN000007	DIODE	2	
D6713	D1FL40F4063	DIODE	1	
D6715,16	B0HBSN000007	DIODE	2	
D6728,29	B0HBSN000007	DIODE	2	
D6734-39	M1FS4	DIODE	6	
D6740	D1FL40F4063	DIODE	1	
D6749,50	M1FS4	DIODE	2	
D6751-53	D1FL40F4063	DIODE	3	
D6754	MA8240MTX	ZENER DIODE	1	
D6756	M1FS4	DIODE	1	
D6758,59	MA8330M	ZENER DIODE	2	
D6760	LNJ201LPQJA	LED	1	
D6761	MA8051L	ZENER DIODE	1	
D6762,63	MA111	DIODE	2	
D6764	LNJ201LPQJA	LED	1	
D6766	MA111	DIODE	1	
D6769	D1FL40F4063	DIODE	1	
D6771,72	MA111	DIODE	2	
D6773	D1FL40F4063	DIODE	1	
D6795	D1FL40F4063	DIODE	1	
D6802	D1FL40F4063	DIODE	1	
D6805,06	D1FL40F4063	DIODE	2	
D6807	B0HDSM000004	DIODE	1	
D6811-13	D1FL40F4063	DIODE	3	
D6814-17	B0HDSM000004	DIODE	4	
D6818	D1FL40F4063	DIODE	1	
D6820,21	B0HDSM000004	DIODE	2	
D6822,23	MA152	DIODE	2	
D6824	M1FS4	DIODE	1	
D6826-29	M1FS4	DIODE	4	
D6902	D1FL40F4063	DIODE	1	

D6905,06	D1FL40F4063	DIODE	2	
D6907	B0HDSM000004	DIODE	1	
D6911-13	D1FL40F4063	DIODE	3	
D6914-17	B0HDSM000004	DIODE	4	
D6918	D1FL40F4063	DIODE	1	
D6920,21	B0HDSM000004	DIODE	2	
D6922,23	MA152	DIODE	2	
D6924	M1FS4	DIODE	1	
D6926,27	M1FS4	DIODE	2	
D7101-08	M1FL20UF4063	DIODE	8	
D7201-06	M1FL20UF4063	DIODE	6	
D7301-08	M1FL20UF4063	DIODE	8	
D7401-04	MA152K	DIODE	4	
D7405-12	M1FL20UF4063	DIODE	8	
D7501-06	M1FL20UF4063	DIODE	6	
D7601-08	M1FL20UF4063	DIODE	8	
D8001-04	MA111	DIODE	4	
D8010,11	MA153	DIODE	2	
D9001	MA3036H	ZENER DIODE	1	
D9003	MA3036H	ZENER DIODE	1	
D9705-13	MA3062M	ZENER DIODE	9	
D9714	MA152	DIODE	1	
D9715	MA3062M	ZENER DIODE	1	
D9716	MA111	DIODE	1	
D9719,20	MA3062M	ZENER DIODE	2	
D9723	MA3062M	ZENER DIODE	1	
D9724	MA111	DIODE	1	
D9727	MA152K	DIODE	1	
D9730	MA152K	DIODE	1	
D9769	MA152K	DIODE	1	
D9771	MA152K	DIODE	1	
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D9801	M1FS4	DIODE	1	
D9952	M1FS4	DIODE	1	
D9953	MA152K	DIODE	1	
D9954	M1FS4	DIODE	1	
D9955	B0JCPD000010	DIODE	1	
DL7201,02	ELKE103FA	NOISE FILTER	2	

DL7501-03	ELKE103FA	NOISE FILTER	3	
F405	P130A	FUSE	1	
F900-1	EYF-52BC	FUSE HOLDER	1	
F900-2	EYF-52BC	FUSE HOLDER	1	
F900.901	K5Y802B00001	FUSE	2	
F901-1	EYF-52BC	FUSE HOLDER	1	
F901-2,-1	EYF-52BC	FUSE HOLDER	2	
F902-2	EYF-52BC	FUSE HOLDER	1	
F902	K5D312BK0012	FUSE	1	
H0	K1KA08A00293	8P CONNECTOR	1	
H1,H2	K1KA80B00034	80P CONNECTOR	2	
H37	TJS3A9640	3P CONNECTOR	1	
HX1	K1KB22A00036	20P CONNECTOR	1	
IC401	CNC1S171R	IC	1	
IC402	NJM2903V	IC	1	
IC403,04	CNC1S171R	IC	2	
IC406	C0DAZZZ00019	IC	1	
IC408	CNC1S171R	IC	1	
IC409	MIP2E2DMPSCF	IC	1	
IC501	C2ABDA000040	IC	1	
IC502	C0EBH0000190	IC	1	
IC503	C0ZBZ0000383	IC	1	
IC504	TA76431ASTP6	IC	1	
IC511	C0DAAZG00010	IC	1	
IC512	TA76431ASTP6	IC	1	
IC520	C0JBAZ002056	IC	1	
IC521	C0JBAF000367	IC	1	
IC522	C0JBAZ002056	IC	1	
IC523	C0JBAF000367	IC	1	
IC801	C0DAAHG00008	IC	1	
IC802	C0DAAHG00007	IC	1	
IC803	C0DBALH00002	IC	1	
IC901	MIP2E4DMY1TV	IC	1	
IC902	AN1431T	LINEAR IC	1	
IC951	PQ12SZ1T	IC	1	

IC952	PQ09SZ1T	IC	1	
IC1001	C1DB00000274	IC	1	
IC1550	B3L000000020	IC	1	
IC2301,02	LA4901	IC	2	
IC2304	PQ09SZ1T	IC	1	
IC2401	BH3865S	LINEAR IC	1	
IC3001	MC14052BF	MOS IC (CMOS GATE ARRLY)	1	
IC3002	C0JBBR000002	IC	1	
IC3003	CXA1315M	LINEAR IC	1	
IC3004	CXA1875AM	LINEAR IC	1	
IC3005	C1AB00001139	IC	1	
IC3006	CXA1315M	LINEAR IC	1	
IC3007	AHC2G66HDCTR	INTEGRATED CIRCUIT	1	
IC3101	PQ07VZ012ZP	IC	1	
IC3102	C0DBZLB00001	IC	1	
IC3103	C1AB00001826	IC	1	
IC3104	PST9128NR	IC (LOGIC)	1	
IC3105	C0JBAZ001834	IC	1	
IC3108,09	AN78L05M	LINEAR IC	2	
IC3201	C1AB00001720	IC	1	
IC3201 02	C3HBKZ000001	IC	1	
IC3251 02	C0ZBZ0000684	IC	1	
IC3251	C1AB00001720	IC	1	
IC3301	MM1065ZMR	LINEAR IC	1	
IC3302	PQ07VZ012ZP	IC	1	
IC3303	AN80L25RMS	IC	1	
IC3305	JLC1562BF	MOS IC (MICON LSI)	1	
IC3311	C0JBBZ000285	IC	1	
IC3401	C0ABZA000028	IC	1	
IC3502	TVRN145	IC	1	
IC3699	S-24C16AFJ	INTEGRATED CIRCUIT	1	
IC6401-06	C0HBC0000005	IC	6	
IC6411-16	C0HBC0000005	IC	6	
IC6431	AN1431M	LINEAR IC	1	
IC6434	TLP181	PHOTO COUPLER	1	
IC6451	AN1431M	LINEAR IC	1	
IC6452,53	AN78L15M	LINEAR IC	2	
IC6454,55	AN78L05M	LINEAR IC	2	
IC6456-59	TLP181	PHOTO COUPLER	4	

IC6467	TLP181	PHOTO COUPLER	1	
IC6471,72	AN1431M	LINEAR IC	2	
IC6480	TLP181	PHOTO COUPLER	1	
IC6491	AN1431M	LINEAR IC	1	
IC6501,02	TC74HC14AF	IC	2	
IC6503-08	B3PBA0000191	IC	6	
IC6510	B3PBA0000191	IC	1	
IC6511	C0ZBZ0000735	IC	1	
IC6512	AN78L05M	LINEAR IC	1	
IC6521	C0ZBZ0000735	IC	1	
IC6541,42	C0ZBZ0000735	IC	2	
IC6543	AN78L05M	LINEAR IC	1	
IC6581	NJM2903M	INTEGRATED CIRCUIT	1	
IC6601-03	C0ZBZ0000138	IC	3	
IC6604	M63991FP	LINEAR IC	1	
IC6605,06	C0JBAZ000005	IC	2	
IC6607	TC74HC08AF	IC	1	
IC6671	AN1431M	LINEAR IC	1	
IC6701-04	C0ZBZ0000138	IC	4	
IC6705	C0ZBZ0000735	IC	1	
IC6706	C0JBAZ000005	IC	1	
IC6707	NJM2903M	INTEGRATED CIRCUIT	1	
IC6709	AN1431M	LINEAR IC	1	
IC6801	C0JBAZ000005	IC	1	
IC6802,03	C0ZBZ0000138	IC	2	
IC6804	NJM2903M	INTEGRATED CIRCUIT	1	
IC6805	C0ZBZ0000138	IC	1	
IC6901	C0JBAZ000005	IC	1	
IC6902,03	C0ZBZ0000138	IC	2	
IC6904	NJM2903M	INTEGRATED CIRCUIT	1	
IC6905	C0ZBZ0000138	IC	1	
IC7102-06	C0JBAZ001604	IC	5	
IC7201	C0JBAZ001604	IC	1	
IC7203-05	C0JBAZ001604	IC	3	
IC7301-05	C0JBAZ001604	IC	5	
IC7401-05	C0JBAZ001604	IC	5	
IC7502-05	C0JBAZ001604	IC	4	
IC7602-06	C0JBAZ001604	IC	5	
IC8001,02	MC14052BF	MOS IC (CMOS GATE ARRLY)	2	

IC8003,04	M52346SP	LINEAR IC	2	
IC8005,06	TC74HC14AF	IC	2	
IC8007,08	TC4W53FEL	IC	2	
IC8009	AHC2G66HDCTR	INTEGRATED CIRCUIT	1	
IC8015	C0ZBZ0000205	IC	1	
IC8016	C0JBAZ001934	IC	1	
IC9001	C0CBCBD00008	IC	1	
IC9002	C0ZBZ0000551	IC	1	
IC9003	C0JBAB000550	IC	1	
IC9004	AHC2G66HDCTR	INTEGRATED CIRCUIT	1	
IC9005	C0JBAZ001992	IC	1	
IC9006,07	C0CBCBD00008	IC	2	
IC9008	C0JBAZ001992	IC	1	
IC9009	C0FBAD000069	IC	1	
IC9010	C0CBCBD00008	IC	1	
IC9011	C0ZBZ0000551	IC	1	
IC9012	C0JBAB000550	IC	1	
IC9013	AHC2G66HDCTR	INTEGRATED CIRCUIT	1	
IC9014	TC74LCX244F	MOS IC (CMOS S/LOGIC)	1	
IC9015	C0JBAZ001992	IC	1	
IC9016,17	C0CBCBD00008	IC	2	
IC9018	C0JBAZ001992	IC	1	
IC9019	C0FBAD000069	IC	1	
IC9023	TC74LCX244F	MOS IC (CMOS S/LOGIC)	1	
IC9151	MN845041-A	IC	1	
IC9152	C0CBCBD00008	IC	1	
IC9153	PQ07VZ012ZP	IC	1	
IC9154	C0JBAZ001604	IC	1	
IC9155	C3ABPJ000017	IC	1	
IC9157	TLC2933IPWL	INTEGRATED CIRCUIT	1	
IC9301	C1ZBZ0002358	IC	1	
IC9302	C0CBCBD00008	IC	1	
IC9303	C1ZBZ0002357	IC	1	
IC9304	C3ABPJ000043	IC	1	
IC9305	MN84510-A	IC	1	
IC9453	PQ07VZ012ZP	IC	1	
IC9454	C3ABPJ000043	IC	1	
IC9455	MN84510-A	IC	1	
IC9456	TVRJ957	IC	1	

IC9457	C0JBAZ001604	IC	1	
IC9459	C0JBAZ001992	IC	1	
IC9601	C0JBAZ001604	IC	1	
IC9602	TC74LCX244F	MOS IC (CMOS S/LOGIC)	1	
IC9603,04	C0JBAZ001604	IC	2	
IC9605	C1ZBZ0002329	IC	1	
IC9606	PST9128NR	IC (LOGIC)	1	
IC9608	C0ZBZ0000764	IC	1	
IC9701	MN102L230	IC	1	
IC9702	TVRN140	IC	1	
IC9703	C0JBAZ001604	IC	1	
IC9704	HM538123BJ8Z	IC	1	
IC9705	TVRJ953-2	IC	1	
IC9706	TC74LCX244F	MOS IC (CMOS S/LOGIC)	1	
IC9707	C0JBAE000283	IC	1	
IC9708	S-24C16AFJ	INTEGRATED CIRCUIT	1	
IC9709	TVRJ950-3	IC	1	
IC9710	M51957BFP	LINEAR IC	1	
IC9711	AHC2G66HDCTR	INTEGRATED CIRCUIT	1	
IC9800	C0DBAFH00021	IC	1	
IC9951	C0DBAMH00006	IC	1	
IC9952	C0DBAFH00021	IC	1	
J3	K1KA40A00140	40P CONNECTOR	1	
J5	K1KA31B00004	31P CONNECTOR	1	
J6	K1KA21B00005	21P CONNECTOR	1	
J8	K1KA20A00180	20P CONNECTOR	1	
J10	K1KA06A00183	6P CONNECTOR	1	
J11-13	K1KB80B00023	80P CONNECTOR	3	
J14	K1KA22A00067	22P CONNECTOR	1	
JK3001	K1CB106B0027	CONNECTOR	1	
JK3002	K1QBB2AB0005	CONNECTOR	1	
JK3004	K2HA204B0097	JACK	1	
JK3303	K2HA204B0097	JACK	1	
JK3304	K1QBB5AB0005	CONNECTOR	1	
JK3509	K1FB109B0058	CONNECTOR	1	
JK3511	K1FB115B0034	CONNECTOR	1	
JK3513	K2HC103B0105	JACK	1	

JK8500	K4BC02B00013	TERMINAL	1	
JS2301	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
JS3301-12	J0JCC0000100	CHIP INDUCTOR	12	
JS3501-03	ERJ6GEY0R00	M 0 OHM, 1/10W	3	
JS3506-08	ERJ6GEY0R00	M 0 OHM, 1/10W	3	
JS8092-97	TSK1032	BEAD CHOKE	6	
L401	EXCELDR25C	BEAD CHOKE	1	
L402	EXCELSA24	BEAD CHOKE	1	
L403	EXCELSA35	BEAD CHOKE	1	
L404	J0JBC0000032	CHIP INDUCTOR	1	
L502	EXCELDR25C	BEAD CHOKE	1	
L503	ELELN100KA	CHIP INDUCTOR	1	
L504	G0A151ZA0038	CHOKE COIL	1	
L505-07	EXCELDR25C	BEAD CHOKE	3	
L510	EXCELDR25C	BEAD CHOKE	1	
L801	G1C101ZA0037	INDUCTION COIL	1	
L802	G1C121ZA0037	INDUCTION COIL	1	
L803	G1C680ZA0037	INDUCTION COIL	1	
L901,02	G0BYYYL00004	CHOKE COIL	2	⚠
L903	G0A101L00002	CHOKE COIL	1	⚠
L904	G0A100GA0013	CHOKE COIL	1	
L905	ELF17N011A	LINE FILTER	1	⚠
L906	EXCELDR35C	BEAD CHOKE	1	
L951-60	ELKE103FA	NOISE FILTER	10	
L1001	ELJPA100KB	CHIP INDUCTOR	1	
L2306	ELJPA100KB	CHIP INDUCTOR	1	
L2330,31	TAL10RP221LB	INDUCTION COIL	2	
L3001	ELJPA100KB	CHIP INDUCTOR	1	(J)
L3001	J0HABB000003	LC FILTER	1	(HY)
L3002	ELJPA100KB	CHIP INDUCTOR	1	(J)
L3002	J0HABB000004	LC FILTER	1	(HY)
L3003	ELJPA100KB	CHIP INDUCTOR	1	(J)
L3003	J0HABB000004	LC FILTER	1	(HY)
L3005	ELJPA100KB	CHIP INDUCTOR	1	(J)
L3005	J0JCC0000100	CHIP INDUCTOR	1	(HY)
L3006	ELJPA100KB	CHIP INDUCTOR	1	(J)

L3006	J0E8004B0008	LC FILTER	1	(HY)
L3007	G1C2R2K00006	INDUCTION COIL	1	
L3050	ELJPA100KB	CHIP INDUCTOR	1	
L3051,52	ELJNA1R5JF	COIL	2	
L3101-04	ELJPA100KB	CHIP INDUCTOR	4	
L3107	J0JGC0000021	CHIP INDUCTOR COIL	1	
L3108	ELJPA100KB	CHIP INDUCTOR	1	
L3201	ELJPA100KB	CHIP INDUCTOR	1	
L3251,52	ELJPA2R2MF	CHIP INDUCTOR	2	
L3303	ELJPA100KB	CHIP INDUCTOR	1	
L3305-08	ELKE103FA	NOISE FILTER	4	
L3507-09	J0HABB000004	LC FILTER	3	
L3510-17	TLK212T256AL	EMI FILTER	8	
L3525	J0HABB000003	LC FILTER	1	
L3526	ELJPA100KB	CHIP INDUCTOR	1	(HX)
L3526	J0HABB000003	LC FILTER	1	(HY)
L3527-29	J0HABB000004	LC FILTER	3	
L3530,31	J0HABB000003	LC FILTER	2	
L3532,33	ELJPA100KB	CHIP INDUCTOR	2	
L3555	ELJPA100KB	CHIP INDUCTOR	1	
L6431	J0JJC0000021	CHIP INDUCTOR	1	
L6451	J0JJC0000021	CHIP INDUCTOR	1	
L6453	G0ZZ00002183	PEAKING COIL	1	
L6471	J0JJC0000021	CHIP INDUCTOR	1	
L6472	G0ZZ00002183	PEAKING COIL	1	
L6518	G0ZZ00002183	PEAKING COIL	1	
L6602,03	G0ZZ00002183	PEAKING COIL	2	
L6607,08	J0JJC0000021	CHIP INDUCTOR	2	
L6611-15	G0A1R0L00001	CHOKE COIL	5	
L6618-21	G0ZZ00002183	PEAKING COIL	4	
L6623-29	G0ZZ00002183	PEAKING COIL	7	
L6636-51	G0ZZ00002183	PEAKING COIL	16	
L6661,62	J0JJC0000021	CHIP INDUCTOR	2	
L6701-04	G0A1R0L00001	CHOKE COIL	4	
L6705-08	G0ZZ00002183	PEAKING COIL	4	
L6713	G0ZZ00002183	PEAKING COIL	1	
L6714	G0C101K00023	PEAKING COIL	1	
L6715-37	G0ZZ00002183	PEAKING COIL	23	
L6752-55	G0ZZ00002183	PEAKING COIL	4	

L6758,59	J0JJC0000021	CHIP INDUCTOR	2	
L6761,62	J0JJC0000021	CHIP INDUCTOR	2	
L6767	G0A1R0L00001	CHOKE COIL	1	
L6802	G0ZZ00002183	PEAKING COIL	1	
L6803	J0JJC0000011	CHIP INDUCTOR	1	
L6804-06	J0JJC0000021	CHIP INDUCTOR	3	
L6807,08	G0ZZ00002183	PEAKING COIL	2	
L6816-23	J0JJC0000011	CHIP INDUCTOR	8	
L6825-28	TLPF097	CHOKE COIL	4	
L6832	G0ZZ00002183	PEAKING COIL	1	
L6900,01	J0JJC0000021	CHIP INDUCTOR	2	
L6902	G0ZZ00002183	PEAKING COIL	1	
L6903	J0JJC0000011	CHIP INDUCTOR	1	
L6904,05	G0ZZ00002183	PEAKING COIL	2	
L6906	J0JJC0000021	CHIP INDUCTOR	1	
L6916-23	J0JJC0000011	CHIP INDUCTOR	8	
L6925	TLPF097	CHOKE COIL	1	
L6930-33	TLPF097	CHOKE COIL	4	
L6947	G0ZZ00002183	PEAKING COIL	1	
L7101-08	J0JJC0000011	CHIP INDUCTOR	8	
L7201-06	J0JJC0000011	CHIP INDUCTOR	6	
L7301-08	J0JJC0000011	CHIP INDUCTOR	8	
L7401-08	J0JJC0000011	CHIP INDUCTOR	8	
L7501-06	J0JJC0000011	CHIP INDUCTOR	6	
L7601-08	J0JJC0000011	CHIP INDUCTOR	8	
L8001-07	ELJPA100KB	CHIP INDUCTOR	7	
L8501,02	G0A2R5H00003	CHOKE COIL	2	
L9001-03	ELKE103FA	NOISE FILTER	3	
L9008-10	ELKE103FA	NOISE FILTER	3	
L9309	ELJFA1R0KF	CHIP COIL	1	
L9452	ELJFA1R0KF	CHIP COIL	1	
L9459	ELKE103FA	NOISE FILTER	1	
L9701	ELKE103FA	NOISE FILTER	1	
L9800	G1C1R5Z00002	INDUCTION COIL	1	
L9951-54	ELKE103FA	NOISE FILTER	4	
L9955	G1C470M00012	INDUCTOR COIL	1	
L9956	G1C1R5Z00002	INDUCTION COIL	1	
PF1	K1KA03A00181	3P CONNECTOR	1	

PF9	K1KA03A00181	3P CONNECTOR	1	
PF10	K1KA06A00220	6P CONNECTOR	1	
PR401	K5Y502B00007	FUSE	1	
PR502	ICP-N50T104	PROTECTOR	1	
PR509,10	K5H501Z00005	FUSE	2	
Q401	B1DHBD000002	TRANSISTOR	1	
Q403	2SD1819A	TRANSISTOR	1	
Q404	2SB1386RT100	TRANSISTOR	1	
Q406	B1DELQ000002	TRANSISTOR	1	
Q407	XP0460100L	TRANSISTOR	1	
Q410	B1CEJQ000001	TRANSISTOR	1	
Q411	UN5213	TRANSISTOR	1	
Q412,13	B1DEER000003	TRANSISTOR	2	
Q414,15	B1DEGQ000030	TRANSISTOR	2	
Q416	XP0460100L	TRANSISTOR	1	
Q420,21	2SD1819A	TRANSISTOR	2	
Q501,02	2SD1820A	TRANSISTOR	2	
Q503	UN5111	TRANSISTOR	1	
Q504	2SK3065T100	FET	1	
Q506	XP4401	TRANSISTOR	1	
Q508	B1GBCFNA0010	TRANSISTOR	1	
Q509	XP4401	TRANSISTOR	1	
Q510	2SB1218ARL	TRANSISTOR	1	
Q511	B1CBGD000001	TRANSISTOR	1	
Q512	B1DHBD000002	TRANSISTOR	1	
Q513	B1CBGD000001	TRANSISTOR	1	
Q514	B1MBACA00005	TRANSISTOR	1	
Q515	2SK3065T100	FET	1	
Q516	B1DHBD000002	TRANSISTOR	1	
Q517	XP4401	TRANSISTOR	1	
Q518	B1MBACA00005	TRANSISTOR	1	
Q519	2SK3065T100	FET	1	
Q520	B1HFCFA00015	TRANSISTOR	1	
Q521	2SD1819A	TRANSISTOR	1	
Q522	UN5111	TRANSISTOR	1	
Q524	2SD1819A	TRANSISTOR	1	
Q525	XP0460100L	TRANSISTOR	1	

Q527	B1DAFM000003	TRANSISTOR	1	
Q528	2SD1819A	TRANSISTOR	1	
Q530	XP4501TX	TRANSISTOR	1	
Q531	2SD23750P	TRANSISTOR	1	
Q532	2SD1819A	TRANSISTOR	1	
Q535	2SD1819A	TRANSISTOR	1	
Q537	B1CHND000003	TRANSISTOR	1	
Q540	B1DHBD000002	TRANSISTOR	1	
Q541	B1CBGD000001	TRANSISTOR	1	
Q542	XP0460100L	TRANSISTOR	1	
Q543	XP4401	TRANSISTOR	1	
Q544	UN5111	TRANSISTOR	1	
Q545	2SK3065T100	FET	1	
Q546	2SD1819A	TRANSISTOR	1	
Q547	2SD1119	TRANSISTOR	1	
Q550-52	UN5213	TRANSISTOR	3	
Q903	2SC3311A	TRANSISTOR	1	
Q1540	2SD601A	TRANSISTOR	1	
Q2301-03	2SD601A	TRANSISTOR	3	
Q2305,06	2SD601A	TRANSISTOR	2	
Q2330,31	2SD1266A	TRANSISTOR	2	
Q2333,34	2SD601A	TRANSISTOR	2	
Q2370	2SB709A	TRANSISTOR	1	
Q2406	2SD601A	TRANSISTOR	1	
Q2408	2SD601A	TRANSISTOR	1	
Q2410	2SD601A	TRANSISTOR	1	
Q3001	2SB709A	TRANSISTOR	1	
Q3002-05	2SD601A	TRANSISTOR	4	
Q3007	2SB709A	TRANSISTOR	1	
Q3023	2SD601A	TRANSISTOR	1	
Q3051,52	2SD601A	TRANSISTOR	2	
Q3101	2SB709A	TRANSISTOR	1	(HY)
Q3101	2SD601A	TRANSISTOR	1	(J)
Q3102	2SD1030	TRANSISTOR	1	(HY)
Q3102,03	2SD601A	TRANSISTOR	2	(J)
Q3104	2SD1030	TRANSISTOR	1	(HY)
Q3104-06	2SD601A	TRANSISTOR	3	(J)
Q3401	2SD601A	TRANSISTOR	1	
Q3403	2SD601A	TRANSISTOR	1	

Q3501	2SD601A	TRANSISTOR	1	
Q3502	2SB709A	TRANSISTOR	1	
Q3503-05	2SD601A	TRANSISTOR	3	
Q3506	2SB709A	TRANSISTOR	1	
Q3531,32	2SD601A	TRANSISTOR	2	
Q6431	B1BBCJ000003	TRANSISTOR	1	
Q6432	2SB709A	TRANSISTOR	1	
Q6435	2SD601A	TRANSISTOR	1	
Q6451	B1BBCJ000003	TRANSISTOR	1	
Q6452	2SB709A	TRANSISTOR	1	
Q6454	2SD814A	TRANSISTOR	1	
Q6455	2SD601A	TRANSISTOR	1	
Q6471	B1BBCJ000003	TRANSISTOR	1	
Q6472	2SB709A	TRANSISTOR	1	
Q6474	2SD814A	TRANSISTOR	1	
Q6475-77	2SD601A	TRANSISTOR	3	
Q6491	2SD1263A	TRANSISTOR	1	
Q6492	2SC1473A	TRANSISTOR	1	
Q6511,12	B1DFGL000005	TRANSISTOR	2	
Q6513	2SK620	FET	1	
Q6520	2SD601A	TRANSISTOR	1	
Q6521	B1DEDS000001	TRANSISTOR	1	
Q6522	2SK620	FET	1	
Q6523	2SB1073001TV	TRANSISTOR	1	
Q6524,25	2SD2185	TRANSISTOR	2	
Q6526	2SB1073001TV	TRANSISTOR	1	
Q6530-39	2SK349400L	FET	10	
Q6540-49	2SK373100L	TRANSISTOR	10	
Q6550	2SC1473A	TRANSISTOR	1	
Q6551	2SD601A	TRANSISTOR	1	
Q6552	B1DADU000001	TRANSISTOR	1	
Q6553,54	2SK349400L	FET	2	
Q6555,56	2SK373100L	TRANSISTOR	2	
Q6557,58	2SK620	FET	2	
Q6561	2SB1073001TV	TRANSISTOR	1	
Q6562-64	B1DEDS000001	TRANSISTOR	3	
Q6581	2SD601A	TRANSISTOR	1	
Q6601-10	B1DEJM000005	TRANSISTOR	10	
Q6611	2SD2185	TRANSISTOR	1	

Q6612	2SB1073001TV	TRANSISTOR	1	
Q6613	2SD2185	TRANSISTOR	1	
Q6614	2SB1073001TV	TRANSISTOR	1	
Q6616,17	2SK620	FET	2	
Q6621,22	B1DEJM000003	TRANSISTOR	2	
Q6624,25	B1DEJM000003	TRANSISTOR	2	
Q6627	2SD2185	TRANSISTOR	1	
Q6628	2SB1073001TV	TRANSISTOR	1	
Q6629	2SD2185	TRANSISTOR	1	
Q6630	2SB1073001TV	TRANSISTOR	1	
Q6641,42	2SK3192000LB	FET	2	
Q6645	2SD2185	TRANSISTOR	1	
Q6646	2SB1073001TV	TRANSISTOR	1	
Q6671	2SB940A	TRANSISTOR	1	
Q6672	2SD1263A	TRANSISTOR	1	
Q6673	2SC1473A	TRANSISTOR	1	
Q6701	2SD2185	TRANSISTOR	1	
Q6702	2SB1073001TV	TRANSISTOR	1	
Q6711-20	B1DEJM000005	TRANSISTOR	10	
Q6721-24	B1DEJM000003	TRANSISTOR	4	
Q6725	2SK620	FET	1	
Q6727,28	B1DFHM000002	TRANSISTOR	2	
Q6729,30	2SK326800L	FET	2	
Q6731	2SD1263A	TRANSISTOR	1	
Q6732	2SD2185	TRANSISTOR	1	
Q6733	2SB1073001TV	TRANSISTOR	1	
Q6734	2SD2185	TRANSISTOR	1	
Q6735	2SB1073001TV	TRANSISTOR	1	
Q6736	2SD2185	TRANSISTOR	1	
Q6737	2SB1073001TV	TRANSISTOR	1	
Q6738,39	2SC1473A	TRANSISTOR	2	
Q6741	2SD601A	TRANSISTOR	1	
Q6744	2SD2185	TRANSISTOR	1	
Q6745	2SB1073001TV	TRANSISTOR	1	
Q6811-16	2SK326900L	FET	6	
Q6817	2SD2185	TRANSISTOR	1	
Q6818	2SB1073001TV	TRANSISTOR	1	
Q6819	2SD2185	TRANSISTOR	1	
Q6820	2SB1073001TV	TRANSISTOR	1	

Q6821	2SB1193000LB	TRANSISTOR	1	
Q6822	2SD2185	TRANSISTOR	1	
Q6823	2SB1073001TV	TRANSISTOR	1	
Q6824	2SK326900L	FET	1	
Q6911-16	2SK326900L	FET	6	
Q6917	2SD2185	TRANSISTOR	1	
Q6918	2SB1073001TV	TRANSISTOR	1	
Q6919	2SD2185	TRANSISTOR	1	
Q6920	2SB1073001TV	TRANSISTOR	1	
Q6921	2SB1193000LB	TRANSISTOR	1	
Q6922	2SD2185	TRANSISTOR	1	
Q6923	2SB1073001TV	TRANSISTOR	1	
Q6924	2SK326900L	FET	1	
Q7401,02	2SB709A	TRANSISTOR	2	
Q8001,02	2SD601A	TRANSISTOR	2	
Q8010	2SD601A	TRANSISTOR	1	
Q8011	2SB709A	TRANSISTOR	1	
Q8012	2SD601A	TRANSISTOR	1	
Q8013	2SB709A	TRANSISTOR	1	
Q9001,02	2SD601A	TRANSISTOR	2	
Q9301	2SD601A	TRANSISTOR	1	
Q9400	2SD601A	TRANSISTOR	1	
Q9591-94	2SD601A	TRANSISTOR	4	
Q9596-99	2SD601A	TRANSISTOR	4	
Q9601,02	2SD601A	TRANSISTOR	2	
Q9701	2SD601A	TRANSISTOR	1	
Q9702	2SB1440	TRANSISTOR	1	
Q9703,04	2SK2731T146	TRANSISTOR	2	
Q9706	2SK2731T146	TRANSISTOR	1	
Q9707	2SB709A	TRANSISTOR	1	
Q9708,09	2SD601A	TRANSISTOR	2	
Q9710	2SB709A	TRANSISTOR	1	
Q9714-17	2SD601A	TRANSISTOR	4	
Q9719	2SK620	FET	1	
R401-03	ERJ6ENF2003	M 200KOHM, 1/10W	3	
R405-07	ERJ6ENF2003	M 200KOHM, 1/10W	3	
R409	ERJ6ENF3602	M 36KOHM, 1/10W	1	
R410	ERF10TJ200	W 20 OHM, 10W	1	

R411	D1FZ100E0002	F 10 OHM	1	
R412	ERF10TJ200	W 20 OHM, 10W	1	
R413	D1FZ100E0002	F 10 OHM	1	
R414	ERJ8GEYJ153	M 15KOHM, J,1/8W	1	
R415	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R417	ERJ6ENF4303	M 430KOHM, 1/10W	1	
R421	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R423	ERJ6GEYJ2R2	M 2.2 OHM,J,1/10W	1	
R424	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R425	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R426	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R427	ERJ8GEYJ4R7	M 4.7 OHM, J,1/8W	1	
R428	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R429	ERJ6GEYJ153	M 15KOHM,J,1/10W	1	
R430	ERJ6ENF4303	M 430KOHM, 1/10W	1	
R431	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R432	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R433	ERJ6ENF1202	M 12KOHM, 1/10W	1	
R434	ERJ8GEYJ2R2	M 2.2 OHM, J,1/8W	1	
R435	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R436	ERJ8GEYJ153	M 15KOHM, J,1/8W	1	
R437	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R438	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R439	ERJ14YJ120	M 12 OHM, J,1/4W	1	
R440	ERJ8GEYJ474	M 470KOHM, J,1/8W	1	
R441,42	ERJ6EKF6803	M 680KOHM, 1/10W	2	
R443	EVMAASA00B23	CONTROL 2KOHMB	1	
R444	ERJ6GEYJ123	M 12KOHM,J,1/10W	1	
R445	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R448-50	D0XGR10JA007	RESISTOR ARRAY	3	
R451	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R452	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R454	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R456	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R458	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R462	ERJ6ENF4303	M 430KOHM, 1/10W	1	
R463	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R464	ERJ6ENF3302	M 33KOHM, 1/10W	1	
R465	ERJ6ENF5603	M 560KOHM, 1/10W	1	

R466	D0C3104JA014	M 100KOHM,J,1/3W	1	
R467	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R468-70	ERJ6GEYJ474	M 470KOHM,J,1/10W	3	
R471	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R472,73	ERJ6ENF5603	M 560KOHM, 1/10W	2	
R474	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R475	ERJ6EKF6803	M 680KOHM, 1/10W	1	
R476,77	ERJ8GEYJ300	M 30 OHM, J,1/8W	2	
R478	ERJ8GEYJ681	M 680 OHM, J,1/8W	1	
R481	ERJ14YJ621	M 620 OHM, J,1/4W	1	
R482	ERJ8GEYJ681	M 680 OHM, J,1/8W	1	
R483	ERJ14YJ621	M 620 OHM, J,1/4W	1	
R484,85	ERJ8GEYJ300	M 30 OHM, J,1/8W	2	
R486	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R489	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R493	ERJ14YJ120	M 12 OHM, J,1/4W	1	
R494-96	ERJ6ENF5603	M 560KOHM, 1/10W	3	
R497	ERJ6ENF2402	M 24KOHM, 1/10W	1	
R498	ERJ6GEYJ392	M 3.9KOHM,J,1/10W	1	
R499	ERJ8GEYJ4R7	M 4.7 OHM, J,1/8W	1	
R500	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R501	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R502,03	ERJ6GEYJ104	M 100KOHM,J,1/10W	2	
R504	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R505	ERDS2TJ220	C 22 OHM, J,1/4W	1	
R506	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R507	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R508	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R509	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R510	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R512	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R513,14	ERJ6GEYJ104	M 100KOHM,J,1/10W	2	
R515	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R516	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R517	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R518	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R519,20	ERJ6GEYJ104	M 100KOHM,J,1/10W	2	
R521,22	ERJ8GEYJ100	M 10 OHM, J,1/8W	2	
R524	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	

R527	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R528	ERDS2TJ102	C 1KOHM, J,1/4W	1	
R529	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R530	ERJ6ENF9531	M9.53KOHM, 1/10W	1	
R532	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R534-36	ERJ6GEYJ104	M 100KOHM,J,1/10W	3	
R537	ERJ6ENF5602	M 56KOHM, 1/10W	1	
R538-40	ERJ6GEYJ104	M 100KOHM,J,1/10W	3	
R541-44	ERJ1TRQJR47	M 0.47KHM,J, 1W	4	
R545	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R546	ERJ6ENF2202	M 2.2KOHM, 1/10W	1	
R547-50	ERJ6GEYJ223	M 22KOHM,J,1/10W	4	
R551	ERJ8GEYJ471	M 470 OHM, J,1/8W	1	
R553	ERJ6ENF7501	M 7.5KOHM, 1/10W	1	
R554	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R555,56	ERJ8GEYJ332	M 3.3KOHM, J,1/8W	2	
R557	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R558	ERJ6ENF2702	M 27KOHM, 1/10W	1	
R559	ERJ8GEYJ471	M 470 OHM, J,1/8W	1	
R563	ERJ6GEYJ4R7	M 4.7 OHM,J,1/10W	1	
R564	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R565	ERJ6ENF2201	M 2.2KOHM, 1/10W	1	
R566	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R567	ERJ6ENF1202	M 12KOHM, 1/10W	1	
R568	ERJ1TRQJR47	M 0.47KHM,J, 1W	1	
R569	ERJ6ENF3301	M 3.3KOHM, 1/10W	1	
R570	ERJ6ENF1003	M 100KOHM, 1/10W	1	
R571	ERJ6ENF8201	M 8.2KOHM, 1/10W	1	
R572	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R573	ERJ6ENF3301	M 3.3KOHM, 1/10W	1	
R574	ERJ6GEYJ331	M 330 OHM,J,1/10W	1	
R575	ERJ6GEYJ4R7	M 4.7 OHM,J,1/10W	1	
R576	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R577	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R578	ERJ6ENF2201	M 2.2KOHM, 1/10W	1	
R579	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R580	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R581	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R582	ERJ6ENF1002	M 10KOHM, 1/10W	1	

R583	ERJ6ENF7501	M 7.5KOHM, 1/10W	1	
R584	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R585	ERJ6ENF3302	M 33KOHM, 1/10W	1	
R586	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R587	ERJ8GEYJ471	M 470 OHM, J,1/8W	1	
R588	ERJ6ENF4420	M 442 OHM, 1/10W	1	
R589	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R590	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R592	ERJ6ENF3001	M 3KOHM, 1/10W	1	
R593	ERJ6ENF5601	M 5.6KOHM, 1/10W	1	
R594	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R595	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R596	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R597	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R598	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R599	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R600	ERJ8ENF3900	M 390 OHM, 1/8W	1	
R601	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R602,03	ERJ6ENF1002	M 10KOHM, 1/10W	2	
R604	ERJ6GEYJ391	M 390 OHM,J,1/10W	1	
R605,06	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	2	
R608	D3CA61020010	M1.0 KOHM,J,0.5W	1	
R609	ERJ6GEYJ822	M 8.2KOHM,J,1/10W	1	
R610	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R611	ERJ8GEYJ471	M 470 OHM, J,1/8W	1	
R612	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R613	ERJ6ENF2202	M 2.2KOHM, 1/10W	1	
R614	ERJ6ENF5601	M 5.6KOHM, 1/10W	1	
R615	ERJ6ENF3302	M 33KOHM, 1/10W	1	
R624	ERX1SJR47P	M0.47 OHM, J, 1W	1	
R631	ERJ8GEYJ243	M 24KOHM, J,1/8W	1	
R632	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R634	ERJ6ENF4700	M 470 OHM, 1/10W	1	
R635	ERJ6ENF1071	M1.07KOHM, 1/10W	1	
R636-39	ERJ8ENF3902	M 39K OHM, 1/8W	4	
R640	ERJ6ENF3001	M 3KOHM, 1/10W	1	
R641	EVMAASA00B33	CONTROL 3KOHMB	1	
R642-45	ERJ8ENF3902	M 39K OHM, 1/8W	4	
R646	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	

R649	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R650	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R651	ERG1SJ221	M 220 OHM, J, 1W	1	
R652	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R653,54	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	2	
R656,57	ERJ8GEYJ332	M 3.3KOHM, J,1/8W	2	
R658	ERJ6ENF6201	M 6.2KOHM, 1/10W	1	
R659	ERJ6ENF2202	M 2.2KOHM, 1/10W	1	
R660	ERJ6ENF1202	M 12KOHM, 1/10W	1	
R661	EVMAASA00B53	CONTROL 5KOHMB	1	
R662	ERJ6ENF1503	M 150KOHM, 1/10W	1	
R663	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R664	ERJ6ENF9531	M9.53KOHM, 1/10W	1	
R665	EVMAASA00B23	CONTROL 2KOHMB	1	
R666	ERJ6ENF9101	M 9.1KOHM, 1/10W	1	
R667	ERJ6ENF5101	M 5.1KOHM, 1/10W	1	
R668	ERJ6ENF2401	M 2.4KOHM, 1/10W	1	
R669	ERJ6ENF1503	M 150KOHM, 1/10W	1	
R670,71	ERJ6ENF2202	M 2.2KOHM, 1/10W	2	
R672	ERJ6ENF1502	M 15KOHM, 1/10W	1	
R673	ERJ6ENF5101	M 5.1KOHM, 1/10W	1	
R674,75	ERJ8GEYJ124	M 120KOHM, J,1/8W	2	
R676	ERJ8GEYJ243	M 24KOHM, J,1/8W	1	
R677	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R678	ERDS2TJ223	C 22KOHM, J,1/4W	1	
R679,80	ERJ6ENF2202	M 2.2KOHM, 1/10W	2	
R681	ERJ6GEYJ154	M 150KOHM,J,1/10W	1	
R682,83	ERJ3GEYJ2R2	M 2.2 OHM,J,1/16W	2	
R685	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R686	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R687	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R688	ERJ6GEYJ154	M 150KOHM,J,1/10W	1	
R689	ERG3SJ101	M 100 OHM, J, 3W	1	
R690	ERJ6ENF3002	M 30KOHM, 1/10W	1	
R691-93	ERJ8GEYJ124	M 120KOHM, J,1/8W	3	
R694	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R695-97	ERJ8GEYJ124	M 120KOHM, J,1/8W	3	
R698	ERJ6GEYJ4R7	M 4.7 OHM,J,1/10W	1	
R699	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	

R803	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R805	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R806,07	ERJ6ENF15R0	M 15 OHM, 1/10W	2	
R808	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R809	ERJ6ENF1201	M 1.2KOHM, 1/10W	1	
R810	ERJ6ENF5100	M 510 OHM, 1/10W	1	
R901,02	ERC12ZGK105	S 1MOHM, K,1/2W	2	
R903	ERF7TK3R3	W 3.3 OHM, K, 7W	1	
R904	ERG2FJS683D	M 68KOHM, J, 2W	1	
R905	ERDS2TJ330	C 33 OHM, J,1/4W	1	
R906	ERDS1FJ3R3	C 3.3 OHM, J,1/2W	1	
R907	ERDS2TJ120	C 12 OHM, J,1/4W	1	
R920	ERDS2TJ101	C 100 OHM, J,1/4W	1	
R921	ERDS2TJ222	C 2.2KOHM, J,1/4W	1	
R922	ERDS2TJ472	C 4.7KOHM, J,1/4W	1	
R923	ER0S2CKF2202	M 22KOHM, F,1/4W	1	
R924	ER0S2CKF2402	M 24KOHM, F,1/4W	1	
R925	ER0S2CKF1002	M 10KOHM, F,1/4W	1	
R926	ERDS2TJ332	C 3.3KOHM, J,1/4W	1	
R927	ERDS2TJ473	C 47KOHM, J,1/4W	1	
R928	ERDS2TJ222	C 2.2KOHM, J,1/4W	1	
R951,52	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R1001,02	ERJ6GEYJ560	M 56 OHM,J,1/10W	2	
R1003	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R1500	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R1510	ERJ3GEYF222	M 2.2KOHM, 1/16W	1	
R1511	ERJ3GEYF332	M 3.3KOHM, 1/16W	1	
R1512,13	ERJ3GEYF472	M 4.7KOHM, 1/16W	2	
R1550	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R1551	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R1552	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R1553	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R1554	ERJ6GEYJ271	M 270 OHM,J,1/10W	1	
R1555,56	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R2301	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2304	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R2305,06	ERJ6GEYJ223	M 22KOHM,J,1/10W	2	
R2309	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2310	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	1	

R2319,20	ERJ6GEYJ561	M 560 OHM,J,1/10W	2	
R2321	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R2324,25	ERJ6GEYJ561	M 560 OHM,J,1/10W	2	
R2331	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R2332	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R2333	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R2341	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2343	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2346	ERJ6GEYJ123	M 12KOHM,J,1/10W	1	
R2347	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R2348	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2350	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2351-54	ERJ6GEYJ103	M 10KOHM,J,1/10W	4	
R2355-60	ERDS1FJ2R2	C 2.2 OHM, J,1/2W	6	
R2365,66	ERX1FJSR56D	M0.56 OHM, J, 1W	2	
R2367	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R2368,69	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R2370	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R2371,72	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R2373	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2408	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2410	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2431	ERJ6GEYJ123	M 12KOHM,J,1/10W	1	
R2434	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2438	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R2439	ERJ6GEYJ563	M 56KOHM,J,1/10W	1	
R2440	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R2441	ERJ6GEYJ123	M 12KOHM,J,1/10W	1	
R2445	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R2448	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2450	ERJ6GEYJ563	M 56KOHM,J,1/10W	1	
R2452	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R2453	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2456	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R2457	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R2460	ERJ6ENF1802	M 18KOHM, 1/10W	1	
R2461,62	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R2463	ERJ6ENF1502	M 15KOHM, 1/10W	1	
R2464	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	

R2466	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R2467	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R2468	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2469	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R2470	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2471	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R2472	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R2473	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R2476,77	ERJ6GEYJ220	M 22 OHM,J,1/10W	2	
R2480	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2481,82	ERJ6GEYJ153	M 15KOHM,J,1/10W	2	
R2483	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R2484	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R2485	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R3001	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3001	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(HY)
R3002	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(J)
R3002	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(HY)
R3003	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HY)
R3003	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	(J)
R3004	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R3005	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(HY)
R3005	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	(J)
R3006	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HY)
R3006	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	(J)
R3007	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	(HY)
R3007	TSK1032	BEAD CHOKE	1	(J)
R3008	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HY)
R3008	TSK1032	BEAD CHOKE	1	(J)
R3009	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	(J)
R3009	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HY)
R3010	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	(J)
R3010	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	(HY)
R3011	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HY)
R3011	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	(J)
R3012	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(J)
R3012	ERJ3GEYJ752	M 7.5KOHM,J,1/16W	1	(HY)
R3013	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	(J)
R3013	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	(HY)

R3014	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(J)
R3014	ERJ3GEYJ752	M 7.5KOHM,J,1/16W	1	(HY)
R3015	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	(HY)
R3015-22	TSK1032	BEAD CHOKE	8	(J)
R3025	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R3026	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3026	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	(HY)
R3027	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3027	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	(HY)
R3028	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3028	ERJ3GEYJ820	M 82 OHM,J,1/16W	1	(HY)
R3029	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3030	TSK1032	BEAD CHOKE	1	
R3031	ERJ3EKF1800	M 180 OHM, 1/16W	1	(HY)
R3031	TSK1032	BEAD CHOKE	1	(J)
R3032	ERJ3EKF6200	M 620 OHM, 1/16W	1	(HY)
R3032	TSK1032	BEAD CHOKE	1	(J)
R3033	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HY)
R3033	TSK1032	BEAD CHOKE	1	(J)
R3034	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R3035	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HY)
R3035,36	ERJ3GEYJ331	M 330 OHM,J,1/16W	2	(J)
R3036	ERJ6ENF1800	M 180 OHM, 1/10W	1	(HY)
R3037	TSK1032	BEAD CHOKE	1	
R3038	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	(J)
R3038	TSK1032	BEAD CHOKE	1	(HY)
R3039	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R3040	ERJ3EKF3300	M 330 OHM, 1/16W	1	(HY)
R3040,41	ERJ3GEYJ331	M 330 OHM,J,1/16W	2	(J)
R3042	ERJ3EKF6801	M 6.8KOHM, 1/16W	1	(HY)
R3042,43	TSK1032	BEAD CHOKE	2	(J)
R3044	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3045	ERJ3EKF2200	M 220 OHM, 1/16W	1	(HY)
R3045	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3046	ERJ3EKF1000	M 100 OHM, 1/16W	1	(HY)
R3046	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3047	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HY)
R3047	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(J)
R3048	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)

R3048	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HY)
R3049	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HY)
R3049	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3050	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)
R3050	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(HY)
R3051	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HY)
R3051	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3052	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HY)
R3052	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3053	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	(HY)
R3053	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)
R3054	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HY)
R3054	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)
R3055	ERJ3GEYJ153	M 15KOHM,J,1/16W	1	(HY)
R3055	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3056	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	(HY)
R3056	ERJ3GEYJ334	M 330KOHM,J,1/16W	1	(J)
R3057	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)
R3057	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HY)
R3058	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	(J)
R3058	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HY)
R3059	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R3060	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HY)
R3060	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(J)
R3061	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	(HY)
R3061	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(J)
R3062	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	
R3063	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R3064	ERJ6GEYJ560	M 56 OHM,J,1/10W	1	
R3065	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(HY)
R3065-69	ERJ6GEYJ560	M 56 OHM,J,1/10W	5	(J)
R3070-75	ERJ6ENF75R0	M 75 OHM, 1/10W	6	
R3076-81	ERJ6GEYJ560	M 56 OHM,J,1/10W	6	
R3082,83	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R3084,85	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R3086,87	TSK1032	BEAD CHOKE	2	
R3088-93	ERJ6ENF75R0	M 75 OHM, 1/10W	6	
R3094-96	ERJ3GEYJ331	M 330 OHM,J,1/16W	3	
R3097,98	TSK1032	BEAD CHOKE	2	

R3099,00	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R3101	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HY)
R3101,02	ERJ6ENF1800	M 180 OHM, 1/10W	2	(J)
R3102	J0JCC0000100	CHIP INDUCTOR	1	(HY)
R3103	ERJ6ENF1800	M 180 OHM, 1/10W	1	
R3104	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HY)
R3104,05	ERJ6ENF1800	M 180 OHM, 1/10W	2	(J)
R3106	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HY)
R3106	ERJ6ENF1800	M 180 OHM, 1/10W	1	(J)
R3107	ERJ3GEYJ330	M 33 OHM,J,1/16W	1	(HY)
R3107	TSK1032	BEAD CHOKE	1	(J)
R3108	J0JCC0000100	CHIP INDUCTOR	1	(HY)
R3108	TSK1032	BEAD CHOKE	1	(J)
R3112	ERJ3EKF1501	M 1.5KOHM, 1/16W	1	(HY)
R3112	TSK1032	BEAD CHOKE	1	(J)
R3113	ERJ3EKF1501	M 1.5KOHM, 1/16W	1	(HY)
R3113	TSK1032	BEAD CHOKE	1	(J)
R3114	ERJ6ENF8200	M 820 OHM, 1/10W	1	(HY)
R3114	J0JCC0000100	CHIP INDUCTOR	1	(J)
R3115	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R3116	TSK1032	BEAD CHOKE	1	
R3117	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	(HY)
R3117	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	(J)
R3118	ERJ6ENF1501	M 1.5KOHM, 1/10W	1	(J)
R3118	J0JCC0000100	CHIP INDUCTOR	1	(HY)
R3119	ERJ3GEYJ121	M 120 OHM,J,1/16W	1	
R3120	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R3121	ERJ3GEYJ121	M 120 OHM,J,1/16W	1	(HY)
R3121	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(J)
R3122	ERJ3EKF8201	M 8.2KOHM, 1/16W	1	(HY)
R3122	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(J)
R3123	ERJ3EKF1502	M 15KOHM, 1/16W	1	(HY)
R3123	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(J)
R3124	ERJ3EKF10R0	M 10 OHM, 1/16W	1	(HY)
R3124,25	ERJ6GEY0R00	M 0 OHM, 1/10W	2	(J)
R3125	J0JCC0000100	CHIP INDUCTOR	1	(HY)
R3126	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(J)
R3127	ERJ6ENF12R0	M 12 OHM, 1/10W	1	(HY)
R3127	ERJ6GEY0R00	M 0 OHM, 1/10W	1	(J)

R3128,29	ERJ3GEYJ181	M 180 OHM,J,1/16W	2	(J)
R3129	ERJ6ENF12R0	M 12 OHM, 1/10W	1	(HY)
R3130,31	ERJ3GEYJ181	M 180 OHM,J,1/16W	2	(J)
R3131	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HY)
R3132,33	ERJ3GEYJ181	M 180 OHM,J,1/16W	2	
R3135	ERJ6ENF10R0	M 10 OHM, 1/10W	1	
R3136-39	J0JCC0000100	CHIP INDUCTOR	4	
R3140	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	(HY)
R3140,41	ERJ3GEYJ473	M 47KOHM,J,1/16W	2	(J)
R3143	J0JCC0000100	CHIP INDUCTOR	1	
R3144,45	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R3148,49	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R3151	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R3152	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	
R3153	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R3154,55	ERJ3GEYJ331	M 330 OHM,J,1/16W	2	
R3156	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	
R3157	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R3158	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	1	
R3159	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R3160	ERJ3EKF2701	M 2.7KOHM, 1/16W	1	(HY)
R3160	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	(J)
R3161	ERJ3EKF2701	M 2.7KOHM, 1/16W	1	(HY)
R3161	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	(J)
R3162,63	ERJ3EKF2701	M 2.7KOHM, 1/16W	2	
R3164-67	J0JCC0000100	CHIP INDUCTOR	4	
R3168	ERJ3EKF2000	M 200 OHM, 1/16W	1	
R3169-72	ERJ6ENF75R0	M 75 OHM, 1/10W	4	
R3173	ERJ3EKF2200	M 220 OHM, 1/16W	1	
R3174	J0JCC0000100	CHIP INDUCTOR	1	
R3177	ERJ3EKF1401	M 1.4KOHM, 1/16W	1	
R3178	ERJ3EKF1101	M 1.1KOHM, 1/16W	1	
R3179	ERJ3EKF1401	M 1.4KOHM, 1/16W	1	
R3180	ERJ3EKF1101	M 1.1KOHM, 1/16W	1	
R3181	ERJ3EKF1401	M 1.4KOHM, 1/16W	1	
R3182	ERJ3EKF1101	M 1.1KOHM, 1/16W	1	
R3183	ERJ3EKF1401	M 1.4KOHM, 1/16W	1	
R3184	ERJ3EKF1101	M 1.1KOHM, 1/16W	1	
R3185	ERJ6GEY0R00	M 0 OHM, 1/10W	1	

R3188,89	ERJ6ENF75R0	M 75 OHM, 1/10W	2	(J)
R3189	J0JCC0000100	CHIP INDUCTOR	1	(HY)
R3190	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HY)
R3190	ERJ6ENF75R0	M 75 OHM, 1/10W	1	(J)
R3191	ERJ14YJ330	M 33 OHM, J,1/4W	1	(J)
R3191	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	(HY)
R3192-94	ERJ14YJ330	M 33 OHM, J,1/4W	3	
R3195,96	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R3197,98	ERJ3GEYJ123	M 12KOHM,J,1/16W	2	
R3199-02	ERJ6ENF1800	M 180 OHM, 1/10W	4	(J)
R3202	J0JCC0000100	CHIP INDUCTOR	1	(HY)
R3203	ERJ6ENF1800	M 180 OHM, 1/10W	1	(J)
R3203	J0JCC0000100	CHIP INDUCTOR	1	(HY)
R3204	ERJ6ENF1800	M 180 OHM, 1/10W	1	
R3207	J0JCC0000100	CHIP INDUCTOR	1	
R3210,11	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R3212-15	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	4	
R3216-19	ERJ6GEYJ3R3	M 3.3KOHM,J,1/10W	4	
R3230,31	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R3251	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R3252	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3253	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	(HY)
R3253	TSK1032	BEAD CHOKE	1	(J)
R3254	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R3255	ERJ6ENF8200	M 820 OHM, 1/10W	1	
R3256	TSK1032	BEAD CHOKE	1	
R3257	ERJ6ENF1501	M 1.5KOHM, 1/10W	1	
R3259	TSK1032	BEAD CHOKE	1	
R3260-62	ERJ6ENF75R0	M 75 OHM, 1/10W	3	
R3297,98	TSK1032	BEAD CHOKE	2	
R3300,01	ERJ3EKF1501	M 1.5KOHM, 1/16W	2	
R3302	ERJ3GEYJ203	M 20KOHM,J,1/16W	1	
R3303,04	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R3305-09	ERJ3GEYJ103	M 10KOHM,J,1/16W	5	
R3313,14	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R3317,18	ERJ3GEYJ333	M 33KOHM,J,1/16W	2	
R3334	J0JCC0000100	CHIP INDUCTOR	1	
R3337,38	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R3400	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	

R3401	ERJ3EKF2701	M 2.7KOHM, 1/16W	1	
R3402	ERJ3EKF1801	M 1.8KOHM, 1/16W	1	
R3403	ERJ3EKF2701	M 2.7KOHM, 1/16W	1	
R3404	ERJ3EKF1801	M 1.8KOHM, 1/16W	1	
R3405	ERJ3EKF2701	M 2.7KOHM, 1/16W	1	
R3406	ERJ3EKF1801	M 1.8KOHM, 1/16W	1	
R3407	ERJ6ENF2201	M 2.2KOHM, 1/10W	1	
R3408	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R3409	ERJ6ENF6800	M 680 OHM, 1/10W	1	
R3410	ERJ6ENF2201	M 2.2KOHM, 1/10W	1	
R3411	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3412	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R3413	ERJ3EKF1800	M 180 OHM, 1/16W	1	
R3418	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R3501,02	ERJ6GEYJ184	M 180KOHM,J,1/10W	2	
R3506-09	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	4	
R3510,11	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R3514-17	TAJAAH0101JV	M 100 OHM,J,1/16W	4	
R3521,22	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	2	
R3525-28	ERJ3GEYJ103	M 10KOHM,J,1/16W	4	
R3529	ERJ6GEYJ184	M 180KOHM,J,1/10W	1	(HX)
R3529	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HY)
R3530	ERJ6GEYJ184	M 180KOHM,J,1/10W	1	(HX)
R3530	TAJAAH0101JV	M 100 OHM,J,1/16W	1	(HY)
R3531,32	ERJ3GEYJ3R3	M 3.3 OHM,J,1/16W	2	
R3535,36	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R3538,39	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R3544,45	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	2	
R3546,02	ERJ3GEYJ3R3	M 3.3 OHM,J,1/16W	2	
R3547,48	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R3585,86	ERJ6GEYJ560	M 56 OHM,J,1/10W	2	
R3589	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R3590	ERJ6GEYJ560	M 56 OHM,J,1/10W	1	
R3591-93	ERJ6GEY0R00	M 0 OHM, 1/10W	3	
R3653	ERJ6GEYJ153	M 15KOHM,J,1/10W	1	
R3654	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R3655	ERJ6GEYJ153	M 15KOHM,J,1/10W	1	
R3656	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R3663,64	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	

R3668	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R3672	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R3776,77	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R3778	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R3790,91	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6401-06	ERJ6GEYJ221	M 220 OHM,J,1/10W	6	
R6407,08	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6409	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R6410	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6411	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R6412	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6421-26	ERJ6GEYJ221	M 220 OHM,J,1/10W	6	
R6427-30	ERJ6GEYJ103	M 10KOHM,J,1/10W	4	
R6431,32	ERJ6GEYJ224	M 220KOHM,J,1/10W	2	
R6433	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6434	ERDS1FJ221	C 220 OHM, J,1/2W	1	
R6435	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R6436	ERJ6ENF1543	M 154KOHM, 1/10W	1	
R6437	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6438	ERJ6ENF2201	M 2.2KOHM, 1/10W	1	
R6439,40	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	2	
R6441,42	ERJ12YJ1R0	M 1 OHM, J,1/2W	2	
R6443	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6444	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6445,46	ERJ6GEYJ151	M 150 OHM,J,1/10W	2	
R6448	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6449	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R6451,52	ERJ12Y0R00	M 0 OHM,J, 1/2W	2	
R6453	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R6454	ERDS1FJ221	C 220 OHM, J,1/2W	1	
R6455	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R6456	ERJ6ENF4533	M 453KOHM, 1/10W	1	
R6457,58	ERJ6ENF1002	M 10KOHM, 1/10W	2	
R6459	ERJ14YJ104	M 100KOHM, J,1/4W	1	
R6460	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6463	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6464	ERG2FJS273D	M 27KOHM, J, 2W	1	
R6465	ERX2FJS8R2D	M 8.2 OHM, J, 2W	1	
R6466	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	

R6467	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R6468	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6469	ERJ12YJ1R0	M 1 OHM, J,1/2W	1	
R6470	ERJ6GEYJ333	M 33KOHM,J,1/10W	1	
R6471	ERJ12YJ1R0	M 1 OHM, J,1/2W	1	
R6473	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R6474	ERDS1FJ221	C 220 OHM, J,1/2W	1	
R6475	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R6476	ERJ6ENF3243	M 324KOHM, 1/10W	1	
R6478	ERJ6ENF6981	M6.98KOHM, 1/10W	1	
R6479	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6480	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6482	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6483	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6484	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6485,86	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6487	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6488	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6489	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	1	
R6490	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6491	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6492,93	ERJ6ENF2203	M 220KOHM, 1/10W	2	
R6494	ERJ6ENF1432	M14.3KOHM, 1/10W	1	
R6495	ERJ6ENF5231	M5.23KOHM, 1/10W	1	
R6496	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6497	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6498,99	ERX1FJS8R2D	M 8.2 OHM, J, 1W	2	
R6500	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	1	
R6501-09	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	9	
R6510	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6511,12	ERX3FJS2R2D	M 2.2 OHM, J, 3W	2	
R6513	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6514	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R6515	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6516	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6517	ERJ6GEYJ471	M 470 OHM,J,1/10W	1	
R6518	ERJ6GEYF103	M 10KOHM,F,1/10W	1	
R6519	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6520	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	

R6521	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6522	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6524	ERJ6ENF1801	M 1.8KOHM, 1/10W	1	
R6525	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6526	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6527	ERJ14YJ102	M 1KOHM, J,1/4W	1	
R6528	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6529	ERJ6GEYJ680	M 68 OHM,J,1/10W	1	
R6530-39	ERJ6GEYJ470	M 47 OHM,J,1/10W	10	
R6540-49	ERJ6GEYJ100	M 10 OHM,J,1/10W	10	
R6550	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6551	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6552	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6553	ERJ6GEYJ151	M 150 OHM,J,1/10W	1	
R6554,55	ERJ6GEYJ104	M 100KOHM,J,1/10W	2	
R6556	ERJ6GEYJ392	M 3.9KOHM,J,1/10W	1	
R6557	ERG1FJS471D	M 470 OHM, J, 1W	1	
R6558	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6559	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R6560,61	ERJ6GEYJ470	M 47 OHM,J,1/10W	2	
R6562-64	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	3	
R6565	ERG1FJS332D	M 3.3KOHM, J, 1W	1	
R6566	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6567,68	ERJ6ENF1003	M 100KOHM, 1/10W	2	
R6569	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R6571-78	ERJ6GEYJ471	M 470 OHM,J,1/10W	8	
R6579	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6580	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6581	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6582,83	ERJ6GEYJ104	M 100KOHM,J,1/10W	2	
R6584	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R6585,86	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	2	
R6587	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6588	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R6589	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6590,91	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R6592,93	ERJ6GEYJ224	M 220KOHM,J,1/10W	2	
R6594	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6595,96	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	2	

R6600	ERD25V0T	M OHM, 1/10W	1	
R6601,02	ERJ6GEYJ470	M 47 OHM,J,1/10W	2	
R6603	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6604	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6605-07	ERJ6GEYJ224	M 220KOHM,J,1/10W	3	
R6608	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6609	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6611-18	ERJ6GEYJ100	M 10 OHM,J,1/10W	8	
R6619-24	ERJ6GEYJ470	M 47 OHM,J,1/10W	6	
R6625	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6626	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6627	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6628	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6629,30	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6631-38	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	8	
R6639	J0JCC0000100	CHIP INDUCTOR	1	
R6641,42	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6643,44	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R6645,46	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R6651-56	ERJ12Y0R00	M 0 OHM,J, 1/2W	6	
R6657-59	ERJ6GEYJ102	M 1KOHM,J,1/10W	3	
R6660-63	ERJ12Y0R00	M 0 OHM,J, 1/2W	4	
R6664-69	ERJ6GEYJ680	M 68 OHM,J,1/10W	6	
R6671	ERG2FJS820D	M 82 OHM, J, 2W	1	
R6672	ERX1FJS8R2D	M 8.2 OHM, J, 1W	1	
R6673	ERG1FJS103D	M 10KOHM, J, 1W	1	
R6674	ERJ12YJ101	M 100 OHM,J, 1/2W	1	
R6675	ERG2FJS223D	M 22KOHM, J, 2W	1	
R6676	ERJ6GEYJ473	M 47KOHM,J,1/10W	1	
R6677	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6678	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	1	
R6679	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6681	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6682,83	ERJ6GEYJ470	M 47 OHM,J,1/10W	2	
R6684	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6685,86	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6687,88	ERX2FJSR22D	M0.22 OHM, J, 2W	2	
R6689,90	ERJ12YJ220	M 22 OHM,J, 1/2W	2	
R6691	EXB38V471J	RESISTOR ARRAY	1	

R6692	EXB38V473J	RESISTOR ARRAY	1	
R6693	EXB38V471J	RESISTOR ARRAY	1	
R6694	EXB38V473J	RESISTOR ARRAY	1	
R6695	EXB38V471J	RESISTOR ARRAY	1	
R6696	EXB38V473J	RESISTOR ARRAY	1	
R6697	EXB38V471J	RESISTOR ARRAY	1	
R6698	EXB38V473J	RESISTOR ARRAY	1	
R6700	ERD25V0T	M OHM, 1/10W	1	
R6703	ERX3FJSR22D	M 2.2 OHM, J, 3W	1	
R6704	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6706	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6707	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	SS
R6707,08	ERJ6GEYJ680	M 68 OHM,J,1/10W	2	
R6710	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6718	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6719-24	ERJ6GEYJ470	M 47 OHM,J,1/10W	6	
R6725	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6726	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6727	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6728	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6729,30	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6731-38	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	8	
R6741,42	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6747	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6749	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6750	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6751,52	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6753	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6754,55	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6756	ERJ6GEYJ470	M 47 OHM,J,1/10W	1	
R6757	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6758	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6759	ERG2FJS101D	M 100 OHM, J, 2W	1	
R6760	ERG1FJS472D	M 4.7KOHM, J, 1W	1	
R6761	ERG2FJS123D	M 12KOHM, J, 2W	1	
R6762	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R6763	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6764	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R6765,66	ERJ6GEYJ333	M 33KOHM,J,1/10W	2	

R6767	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R6769	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6772	ERJ6ENF1201	M 1.2KOHM, 1/10W	1	
R6775	ERJ6GEYJ224	M 220KOHM,J,1/10W	1	
R6776	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6777,78	ERJ6GEYJ104	M 100KOHM,J,1/10W	2	
R6779	ERJ6GEYJ223	M 22KOHM,J,1/10W	1	
R6780,81	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	2	
R6782	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6783	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	1	
R6784	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6785	EXB38V471J	RESISTOR ARRAY	1	
R6786	EXB38V473J	RESISTOR ARRAY	1	
R6787	EXB38V471J	RESISTOR ARRAY	1	
R6788	EXB38V473J	RESISTOR ARRAY	1	
R6789,90	ERJ6GEYJ224	M 220KOHM,J,1/10W	2	
R6791-96	ERJ12Y0R00	M 0 OHM,J, 1/2W	6	
R6801	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6803,04	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6805	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6809	EXB38V471J	RESISTOR ARRAY	1	
R6810	EXB38V473J	RESISTOR ARRAY	1	
R6811,12	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6813	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6814	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R6816	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	1	
R6817	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6818	ERX2FJSR22D	M0.22 OHM, J, 2W	1	
R6820,21	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6822-25	ERJ6GEYJ220	M 22 OHM,J,1/10W	4	
R6827	ERJ6ENF6982	M69.8KOHM, 1/10W	1	
R6828	ERJ6ENF1182	M11.8KOHM, 1/10W	1	
R6829	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R6830	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6831	ERJ6GEYJ474	M 470KOHM,J,1/10W	1	
R6832,33	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	2	
R6835	ERJ6ENF3832	M38.3KOHM, 1/10W	1	
R6836	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R6837	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	

R6838	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6839	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6840	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6841	ERJ6ENF1302	M 13KOHM, 1/10W	1	
R6842,43	ERJ6ENF2202	M 2.2KOHM, 1/10W	2	
R6844	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	
R6845,46	ERF15ZXJ330	W 33 OHM, J, 15W	2	
R6847	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6849	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	1	
R6850	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R6854	ERJ12Y0R00	M 0 OHM,J, 1/2W	1	
R6857	ERX2FJSR22D	M0.22 OHM, J, 2W	1	
R6874	ERJ12YJ220	M 22 OHM,J, 1/2W	1	
R6902	EXB38V471J	RESISTOR ARRAY	1	
R6903	EXB38V473J	RESISTOR ARRAY	1	
R6905	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6911,12	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6913	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6914	ERJ6GEYJ220	M 22 OHM,J,1/10W	1	
R6916	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	1	
R6917	ERJ6GEYJ104	M 100KOHM,J,1/10W	1	
R6920,21	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R6922,23	ERJ6GEYJ220	M 22 OHM,J,1/10W	2	
R6924,25	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	2	
R6927	ERJ6ENF6982	M69.8KOHM, 1/10W	1	
R6928	ERJ6ENF1182	M11.8KOHM, 1/10W	1	
R6929	ERJ6ENF4701	M 4.7KOHM, 1/10W	1	
R6930	ERJ6GEYJ101	M 100 OHM,J,1/10W	1	
R6931	ERJ6GEYJ474	M 470KOHM,J,1/10W	1	
R6932,33	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	2	
R6935	ERJ6ENF3832	M38.3KOHM, 1/10W	1	
R6936	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R6937	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6938	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6939	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6940	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R6941	ERJ6ENF1302	M 13KOHM, 1/10W	1	
R6942,43	ERJ6ENF2202	M 2.2KOHM, 1/10W	2	
R6944	ERJ6GEYJ221	M 220 OHM,J,1/10W	1	

R6945,46	ERF15ZXJ330	W 33 OHM, J, 15W	2	
R6947	ERJ6GEYJ100	M 10 OHM,J,1/10W	1	
R6949	ERJ6GEYJ5R6	M 5.6 OHM,J,1/10W	1	
R7101-03	J0JCC0000100	CHIP INDUCTOR	3	
R7104	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R7105,06	J0JCC0000100	CHIP INDUCTOR	2	
R7107	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R7108	J0JCC0000100	CHIP INDUCTOR	1	
R7109	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R7110-15	J0JCC0000100	CHIP INDUCTOR	6	
R7116,17	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7118,19	J0JCC0000100	CHIP INDUCTOR	2	
R7120-22	TAJAAH0470JV	M 47 OHM,J,1/16W	3	
R7123,24	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R7129	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7130-32	TAJAAH0470JV	M 47 OHM,J,1/16W	3	
R7133	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R7133	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R7134	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R7134-45	TAJAAH0470JV	M 47 OHM,J,1/16W	12	
R7148-51	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7152	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7153-56	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7157-60	J0JCC0000100	CHIP INDUCTOR	4	
R7167,68	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R7169-84	ERJ12YJ4R7	M 4.7OHM, J,1/2W	16	
R7206	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R7207-09	J0JCC0000100	CHIP INDUCTOR	3	
R7213	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7214,15	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7216,17	J0JCC0000100	CHIP INDUCTOR	2	
R7220	J0JCC0000100	CHIP INDUCTOR	1	
R7225	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7227	J0JCC0000100	CHIP INDUCTOR	1	
R7228-31	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7232,33	J0JCC0000100	CHIP INDUCTOR	2	
R7234,35	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7236	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7237	J0JCC0000100	CHIP INDUCTOR	1	

R7238-41	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7242	J0JCC0000100	CHIP INDUCTOR	1	
R7243,44	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7245,46	J0JCC0000100	CHIP INDUCTOR	2	
R7247-50	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7251	J0JCC0000100	CHIP INDUCTOR	1	
R7252,53	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7254,55	J0JCC0000100	CHIP INDUCTOR	2	
R7256-67	ERJ12YJ4R7	M 4.7OHM, J,1/2W	12	
R7302	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7303-06	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7311-26	TAJAAH0470JV	M 47 OHM,J,1/16W	16	
R7328	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7329-36	TAJAAH0470JV	M 47 OHM,J,1/16W	8	
R7337-40	J0JCC0000100	CHIP INDUCTOR	4	
R7346,47	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R7352,53	J0JCC0000100	CHIP INDUCTOR	2	
R7354,55	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R7356-59	J0JCC0000100	CHIP INDUCTOR	4	
R7360	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R7361-65	J0JCC0000100	CHIP INDUCTOR	5	
R7366,67	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R7368	J0JCC0000100	CHIP INDUCTOR	1	
R7369-72	ERJ12YJ4R7	M 4.7OHM, J,1/2W	4	
R7373,74	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7375-82	ERJ12YJ4R7	M 4.7OHM, J,1/2W	8	
R7383,84	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7401	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7402	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7404	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7409	ERJ6GEYJ103	M 10KOHM,J,1/10W	1	
R7410-13	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7414,15	ERJ6GEYJ103	M 10KOHM,J,1/10W	2	
R7416-39	TAJAAH0470JV	M 47 OHM,J,1/16W	24	
R7440-43	J0JCC0000100	CHIP INDUCTOR	4	
R7444	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7454	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7456-59	J0JCC0000100	CHIP INDUCTOR	4	
R7460,61	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	

R7462-69	J0JCC0000100	CHIP INDUCTOR	8	
R7470,71	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R7472	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	
R7473-76	ERJ12YJ4R7	M 4.7OHM, J,1/2W	4	
R7477,78	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7479-86	ERJ12YJ4R7	M 4.7OHM, J,1/2W	8	
R7487,88	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7501	J0JCC0000100	CHIP INDUCTOR	1	
R7502	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7503	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R7504	J0JCC0000100	CHIP INDUCTOR	1	
R7505	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7512	J0JCC0000100	CHIP INDUCTOR	1	
R7514	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R7515,16	J0JCC0000100	CHIP INDUCTOR	2	
R7518-21	J0JCC0000100	CHIP INDUCTOR	4	
R7522	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R7523	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R7525	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R7530-33	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7534	J0JCC0000100	CHIP INDUCTOR	1	
R7535	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7536,37	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7538	J0JCC0000100	CHIP INDUCTOR	1	
R7539-42	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7543	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R7543	J0JCC0000100	CHIP INDUCTOR	1	
R7544,45	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7546	J0JCC0000100	CHIP INDUCTOR	1	
R7547,48	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7549	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R7549,50	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7551	J0JCC0000100	CHIP INDUCTOR	1	
R7552,53	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R7555	J0JCC0000100	CHIP INDUCTOR	1	
R7556-64	ERJ12YJ4R7	M 4.7OHM, J,1/2W	9	
R7564	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R7565-67	ERJ12YJ4R7	M 4.7OHM, J,1/2W	3	
R7601	ERJ6GEYJ102	M 1KOHM,J,1/10W	1	

R7602,03	J0JCC0000100	CHIP INDUCTOR	2	
R7604	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R7605,06	J0JCC0000100	CHIP INDUCTOR	2	
R7607	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R7608-15	J0JCC0000100	CHIP INDUCTOR	8	
R7616,17	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R7618-21	TAJAAH0470JV	M 47 OHM,J,1/16W	4	
R7623	ERJ3GEYJ101	M 100 OHM,J,1/16W	1	
R7626	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7628-32	TAJAAH0470JV	M 47 OHM,J,1/16W	5	
R7633,34	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R7635-43	TAJAAH0470JV	M 47 OHM,J,1/16W	9	
R7646-53	TAJAAH0470JV	M 47 OHM,J,1/16W	8	
R7654-57	J0JCC0000100	CHIP INDUCTOR	4	
R7659	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7663	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7668	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R7669-84	ERJ12YJ4R7	M 4.7OHM, J,1/2W	16	
R8001-16	TSK1032	BEAD CHOKE	16	
R8017-20	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	4	
R8021-24	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	4	
R8025-28	ERJ3GEYJ331	M 330 OHM,J,1/16W	4	
R8029,30	ERJ6ENF3301	M 3.3KOHM, 1/10W	2	
R8031,32	ERJ6ENF2201	M 2.2KOHM, 1/10W	2	
R8033,34	ERJ3GEYJ104	M 100KOHM,J,1/16W	2	
R8035,36	ERJ6ENF3301	M 3.3KOHM, 1/10W	2	
R8037-40	ERJ6ENF4701	M 4.7KOHM, 1/10W	4	
R8041,42	ERJ3GEYJ183	M 18KOHM,J,1/16W	2	
R8043,44	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R8045,46	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	2	
R8047	ERJ3GEYJ271	M 270 OHM,J,1/16W	1	
R8048-51	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	4	
R8054-59	ERJ3GEYJ101	M 100 OHM,J,1/16W	6	
R8060,61	ERJ6ENF3301	M 3.3KOHM, 1/10W	2	
R8062	ERJ3GEYJ271	M 270 OHM,J,1/16W	1	
R8065-70	ERJ3GEYJ101	M 100 OHM,J,1/16W	6	
R8071,72	TSK1032	BEAD CHOKE	2	
R8077-82	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	6	
R8083-85	ERJ3GEYJ102	M 1KOHM,J,1/16W	3	

R8087	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R8089	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R8091	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R8093,94	ERJ6GEYJ101	M 100 OHM,J,1/10W	2	
R8095,96	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R8097-00	ERJ3GEYJ103	M 10KOHM,J,1/16W	4	
R9001	EXB38V470J	RESISTOR ARRAY	1	
R9002,03	J0JCC0000100	CHIP INDUCTOR	2	
R9004	EXB38V470J	RESISTOR ARRAY	1	
R9005	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9006	EXB38V470J	RESISTOR ARRAY	1	
R9007-09	TAJAAH0101JV	M 100 OHM,J,1/16W	3	
R9010	EXB38V470J	RESISTOR ARRAY	1	
R9011	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9012	EXB38V470J	RESISTOR ARRAY	1	
R9014	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9015	ERJ3GEYJ330	M 33 OHM,J,1/16W	1	
R9016	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9017	EXB38V470J	RESISTOR ARRAY	1	
R9018-20	J0JCC0000100	CHIP INDUCTOR	3	
R9022-24	ERJ3GEYJ750	M 75 OHM,J,1/16W	3	
R9025	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9026	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R9027	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9028	J0JCC0000100	CHIP INDUCTOR	1	
R9029	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R9030	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9031	EXB38V470J	RESISTOR ARRAY	1	
R9032,33	J0JCC0000100	CHIP INDUCTOR	2	
R9034	EXB38V470J	RESISTOR ARRAY	1	
R9035	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9036	EXB38V470J	RESISTOR ARRAY	1	
R9037-39	TAJAAH0101JV	M 100 OHM,J,1/16W	3	
R9040	EXB38V470J	RESISTOR ARRAY	1	
R9042	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9043	EXB38V470J	RESISTOR ARRAY	1	
R9044	ERJ3GEYJ330	M 33 OHM,J,1/16W	1	
R9045	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9046	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	

R9047	EXB38V470J	RESISTOR ARRAY	1	
R9050-53	J0JCC0000100	CHIP INDUCTOR	4	
R9054-56	ERJ3GEYJ750	M 75 OHM,J,1/16W	3	
R9057	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9058	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R9059	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9060	J0JCC0000100	CHIP INDUCTOR	1	
R9061	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R9062	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9063	ERJ3GEYJ100	M 10 OHM,J,1/16W	1	
R9104-07	J0JCC0000100	CHIP INDUCTOR	4	
R9108-10	ERJ6GEY0R00	M 0 OHM, 1/10W	3	
R9111-13	J0JCC0000100	CHIP INDUCTOR	3	
R9114,15	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R9117-20	ERJ6GEY0R00	M 0 OHM, 1/10W	4	
R9122,23	ERJ6GEY0R00	M 0 OHM, 1/10W	2	
R9130-35	TAJAAH0101JV	M 100 OHM,J,1/16W	6	
R9136	J0JCC0000100	CHIP INDUCTOR	1	
R9151-55	EXB2HVR000	RESISTOR ARRAY	5	
R9157	EXB2HVR000	RESISTOR ARRAY	1	
R9167,68	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9171,72	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9176	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9177	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R9178,79	J0JCC0000100	CHIP INDUCTOR	2	
R9180	ERJ3GEYJ100	M 10 OHM,J,1/16W	1	
R9182	J0JCC0000100	CHIP INDUCTOR	1	
R9183	ERJ6ENF3001	M 3KOHM, 1/10W	1	
R9184	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R9187	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9190	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9191	J0JCC0000100	CHIP INDUCTOR	1	
R9199	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9202	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9203	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R9204,05	J0JCC0000100	CHIP INDUCTOR	2	
R9211-15	J0JCC0000100	CHIP INDUCTOR	5	
R9216	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9218	J0JCC0000100	CHIP INDUCTOR	1	

R9219	ERJ3GEYJ100	M 10 OHM,J,1/16W	1	
R9220,21	ERJ3GEYJ151	M 150 OHM,J,1/16W	2	
R9224	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R9226	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9228	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R9229,30	J0JCC0000100	CHIP INDUCTOR	2	
R9231	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R9232	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9234	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9236	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9240,41	ERJ3GEYJ330	M 33 OHM,J,1/16W	2	
R9244,45	J0JCC0000100	CHIP INDUCTOR	2	
R9302	J0JCC0000100	CHIP INDUCTOR	1	
R9304	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9309	J0JCC0000100	CHIP INDUCTOR	1	
R9310	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R9311	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9312-14	ERJ6GEY0R00	M 0 OHM, 1/10W	3	
R9315	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9317	J0JCC0000100	CHIP INDUCTOR	1	
R9318-21	EXB38V470J	RESISTOR ARRAY	4	
R9322	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9323,24	EXB38V680J	RESISTOR ARRAY	2	
R9325	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9327	EXB38V680J	RESISTOR ARRAY	1	
R9328	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9329,30	ERJ3GEYJ100	M 10 OHM,J,1/16W	2	
R9331	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9332	EXB38V680J	RESISTOR ARRAY	1	
R9335	J0JCC0000100	CHIP INDUCTOR	1	
R9336	ERJ3GEYJ100	M 10 OHM,J,1/16W	1	
R9337	J0JCC0000100	CHIP INDUCTOR	1	
R9338	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9339	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9341,42	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R9346	J0JCC0000100	CHIP INDUCTOR	1	
R9347,48	ERJ3GEYJ100	M 10 OHM,J,1/16W	2	
R9349	EXB38V680J	RESISTOR ARRAY	1	
R9350	J0JCC0000100	CHIP INDUCTOR	1	

R9351	EXB38V680J	RESISTOR ARRAY	1	
R9352	ERJ3GEYJ100	M 10 OHM,J,1/16W	1	
R9354	TAJAAH0470JV	M 47 OHM,J,1/16W	1	
R9355	ERJ3GEYJ100	M 10 OHM,J,1/16W	1	
R9357-59	EXB38V680J	RESISTOR ARRAY	3	
R9362	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9363	EXB38V680J	RESISTOR ARRAY	1	
R9365	EXB38V680J	RESISTOR ARRAY	1	
R9367	J0JCC0000100	CHIP INDUCTOR	1	
R9368,69	EXB38V680J	RESISTOR ARRAY	2	
R9371	J0JCC0000100	CHIP INDUCTOR	1	
R9373-75	J0JCC0000100	CHIP INDUCTOR	3	
R9376	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9377-79	EXB2HVR000	RESISTOR ARRAY	3	
R9380	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9382	J0JCC0000100	CHIP INDUCTOR	1	
R9385	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9386	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R9388	J0JCC0000100	CHIP INDUCTOR	1	
R9389,90	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9391,92	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R9393-96	ERJ3GEYJ103	M 10KOHM,J,1/16W	4	
R9397,98	ERJ6ENF1001	M 1KOHM, 1/10W	2	
R9399,00	ERJ3GEYJ100	M 10 OHM,J,1/16W	2	
R9401,02	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R9403	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9405	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9408	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9411	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9413	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9415	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9420	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R9421	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9422	J0JCC0000100	CHIP INDUCTOR	1	
R9425	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9431	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9435	J0JCC0000100	CHIP INDUCTOR	1	
R9437	J0JCC0000100	CHIP INDUCTOR	1	
R9439-41	J0JCC0000100	CHIP INDUCTOR	3	

R9443-45	J0JCC0000100	CHIP INDUCTOR	3	
R9447	J0JCC0000100	CHIP INDUCTOR	1	
R9449	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9455	J0JCC0000100	CHIP INDUCTOR	1	
R9459	J0JCC0000100	CHIP INDUCTOR	1	
R9460-62	ERJ3GEYJ100	M 10 OHM,J,1/16W	3	
R9465,66	EXB2HVR000	RESISTOR ARRAY	2	
R9468	EXB2HVR000	RESISTOR ARRAY	1	
R9469,70	J0JCC0000100	CHIP INDUCTOR	2	
R9475	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9476	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R9477,78	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9479	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9480,81	ERJ6ENF1001	M 1KOHM, 1/10W	2	
R9483	J0JCC0000100	CHIP INDUCTOR	1	
R9484,85	ERJ3GEYJ102	M 1KOHM,J,1/16W	2	
R9486,87	ERJ6ENF1001	M 1KOHM, 1/10W	2	
R9488,89	ERJ3GEYJ100	M 10 OHM,J,1/16W	2	
R9490,91	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R9492-95	EXB38VR000	RESISTOR ARRAY	4	
R9496	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9498	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9501	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9503	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9504	EXB38V103J	RESISTOR ARRAY	1	
R9506	EXB38V103J	RESISTOR ARRAY	1	
R9509-13	ERJ3GEYJ103	M 10KOHM,J,1/16W	5	
R9514	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9515	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R9516,17	J0JCC0000100	CHIP INDUCTOR	2	
R9518-27	EXB38V680J	RESISTOR ARRAY	10	
R9529,30	EXB38V680J	RESISTOR ARRAY	2	
R9532-37	TAJAAH0470JV	M 47 OHM,J,1/16W	6	
R9538,39	J0JCC0000100	CHIP INDUCTOR	2	
R9540	EXB38V470J	RESISTOR ARRAY	1	
R9541,42	J0JCC0000100	CHIP INDUCTOR	2	
R9543	EXB38V470J	RESISTOR ARRAY	1	
R9544,45	TAJAAH0470JV	M 47 OHM,J,1/16W	2	
R9547	TAJAAH0470JV	M 47 OHM,J,1/16W	1	

R9548	J0JCC0000100	CHIP INDUCTOR	1	
R9549	EXB38V680J	RESISTOR ARRAY	1	
R9550,51	EXB38V470J	RESISTOR ARRAY	2	
R9552	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R9553	EXB38V680J	RESISTOR ARRAY	1	
R9554	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R9556-58	ERJ3GEYJ151	M 150 OHM,J,1/16W	3	
R9559	EXB38V470J	RESISTOR ARRAY	1	
R9560	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R9561	EXB38V470J	RESISTOR ARRAY	1	
R9562	ERJ3GEYJ151	M 150 OHM,J,1/16W	1	
R9563	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9564	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9565	J0JCC0000100	CHIP INDUCTOR	1	
R9567	J0JCC0000100	CHIP INDUCTOR	1	
R9569	J0JCC0000100	CHIP INDUCTOR	1	
R9577	J0JCC0000100	CHIP INDUCTOR	1	
R9585	J0JCC0000100	CHIP INDUCTOR	1	
R9586	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R9592	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R9593	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9594	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9595	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R9596	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9597	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9600	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	
R9601-05	J0JCC0000100	CHIP INDUCTOR	5	
R9607-17	J0JCC0000100	CHIP INDUCTOR	11	
R9618	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R9620,21	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9622,23	J0JCC0000100	CHIP INDUCTOR	2	
R9624	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9625	ERJ3GEYJ561	M 560 OHM,J,1/16W	1	
R9627-29	J0JCC0000100	CHIP INDUCTOR	3	
R9631-35	J0JCC0000100	CHIP INDUCTOR	5	
R9637,38	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9640,41	J0JCC0000100	CHIP INDUCTOR	2	
R9642	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9643	J0JCC0000100	CHIP INDUCTOR	1	

R9645	J0JCC0000100	CHIP INDUCTOR	1	
R9646	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9647	J0JCC0000100	CHIP INDUCTOR	1	
R9648	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9650-53	EXB38V103J	RESISTOR ARRAY	4	
R9654-57	J0JCC0000100	CHIP INDUCTOR	4	
R9658	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9659-61	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	3	
R9662	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9663-69	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	7	
R9670-79	J0JCC0000100	CHIP INDUCTOR	10	
R9682-90	J0JCC0000100	CHIP INDUCTOR	9	
R9692	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9693	EXB38V103J	RESISTOR ARRAY	1	
R9694-00	J0JCC0000100	CHIP INDUCTOR	7	
R9701	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9702	TAJAAH0680JV	M 68 OHM,J,1/16W	1	
R9703-08	TAJAAH0101JV	M 100 OHM,J,1/16W	6	
R9709	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R9710-16	ERJ3GEYJ151	M 150 OHM,J,1/16W	7	
R9717,18	J0JCC0000100	CHIP INDUCTOR	2	
R9719-24	ERJ3GEYJ151	M 150 OHM,J,1/16W	6	
R9725	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R9726	J0JCC0000100	CHIP INDUCTOR	1	
R9727	EXB38VR000	RESISTOR ARRAY	1	
R9728	J0JCC0000100	CHIP INDUCTOR	1	
R9729-32	TAJAAH0101JV	M 100 OHM,J,1/16W	4	
R9733	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R9734	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9735	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9736	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R9737	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9738,39	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	2	
R9741	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9743	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9744	J0JCC0000100	CHIP INDUCTOR	1	
R9745	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9747	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9748	J0JCC0000100	CHIP INDUCTOR	1	

R9749	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9750	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9751	EXB38V103J	RESISTOR ARRAY	1	
R9753	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9754	EXB38V272J	RESISTOR ARRAY	1	
R9755,56	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	2	
R9757	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9758	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9759	ERJ3GEYJ560	M 56 OHM,J,1/16W	1	
R9760	J0JCC0000100	CHIP INDUCTOR	1	
R9761	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9762	EXB38V103J	RESISTOR ARRAY	1	
R9763	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9765	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9766	J0JCC0000100	CHIP INDUCTOR	1	
R9767	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9768	EXB38V470J	RESISTOR ARRAY	1	
R9769	EXB38VR000	RESISTOR ARRAY	1	
R9770	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9771	EXB38VR000	RESISTOR ARRAY	1	
R9773	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9774-76	ERJ3GEYJ103	M 10KOHM,J,1/16W	3	
R9777	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R9779	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9781	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9782	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	1	
R9783,84	ERJ3GEYJ560	M 56 OHM,J,1/16W	2	
R9785,86	EXB38VR000	RESISTOR ARRAY	2	
R9787	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9788	J0JCC0000100	CHIP INDUCTOR	1	
R9789	ERJ3GEYJ471	M 470 OHM,J,1/16W	1	
R9790	ERJ3GEYJ152	M 1.5KOHM,J,1/16W	1	
R9791	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9794	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R9795	ERJ3GEYJ105	M 1MOHM,J,1/16W	1	
R9798,99	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	2	
R9800	J0JCC0000100	CHIP INDUCTOR	1	
R9803,04	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R9805	J0JCC0000100	CHIP INDUCTOR	1	

R9806	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9807,08	EXB38V103J	RESISTOR ARRAY	2	
R9810,11	J0JCC0000100	CHIP INDUCTOR	2	
R9814	ERJ3GEYJ100	M 10 OHM,J,1/16W	1	
R9816	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9817	J0JCC0000100	CHIP INDUCTOR	1	
R9818,19	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R9820	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9823,24	ERJ3GEYJ560	M 56 OHM,J,1/16W	2	
R9825	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9826	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9827	ERJ3GEYJ332	M 3.3KOHM,J,1/16W	1	
R9829	ERJ3GEYJ393	M 39KOHM,J,1/16W	1	
R9831,32	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9833	ERJ3GEYJ393	M 39KOHM,J,1/16W	1	
R9834,35	ERJ3GEYJ560	M 56 OHM,J,1/16W	2	
R9836	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9837	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9838	J0JCC0000100	CHIP INDUCTOR	1	
R9839,40	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R9843,44	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9846,47	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9848	EXB38V103J	RESISTOR ARRAY	1	
R9849,50	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R9851	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R9852,53	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9854	J0JCC0000100	CHIP INDUCTOR	1	
R9855	ERJ3GEYJ393	M 39KOHM,J,1/16W	1	
R9856	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9857	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9858	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9859	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9860	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9861	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9864	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9865	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9867	ERJ3GEYJ330	M 33 OHM,J,1/16W	1	
R9868	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9869	TAJAAH0101JV	M 100 OHM,J,1/16W	1	

R9871	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9872	J0JCC0000100	CHIP INDUCTOR	1	
R9873	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9874,75	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R9876	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9878-80	TAJAAH0101JV	M 100 OHM,J,1/16W	3	
R9882,83	TAJAAH0101JV	M 100 OHM,J,1/16W	2	
R9885	EXB38V103J	RESISTOR ARRAY	1	
R9886	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9887,88	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9889	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9890	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9892	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9893-96	TAJAAH0101JV	M 100 OHM,J,1/16W	4	
R9897	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9898	J0JCC0000100	CHIP INDUCTOR	1	
R9900	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9901	J0JCC0000100	CHIP INDUCTOR	1	
R9902	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9903-05	ERJ3GEYJ103	M 10KOHM,J,1/16W	3	
R9906	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9907	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9908	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9909	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9910	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9912	J0JCC0000100	CHIP INDUCTOR	1	
R9913	ERJ6ENF2202	M 2.2KOHM, 1/10W	1	
R9914	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9916	J0JCC0000100	CHIP INDUCTOR	1	
R9917	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9918	J0JCC0000100	CHIP INDUCTOR	1	
R9919	ERJ6ENF1002	M 10KOHM, 1/10W	1	
R9920	ERJ3GEYJ105	M 1MOHM,J,1/16W	1	
R9921-23	TAJAAH0101JV	M 100 OHM,J,1/16W	3	
R9924	ERJ3GEYJ223	M 22KOHM,J,1/16W	1	
R9925	J0JCC0000100	CHIP INDUCTOR	1	
R9930	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9931	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9932	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	

R9933	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9934	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9935,36	ERJ3GEYJ562	M 5.6KOHM,J,1/16W	2	
R9937	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9939	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9940	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9941	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9942	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9943	TAJAAH0101JV	M 100 OHM,J,1/16W	1	
R9944	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9945,46	ERJ3GEYJ100	M 10 OHM,J,1/16W	2	
R9947	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9948,49	ERJ3GEYJ103	M 10KOHM,J,1/16W	2	
R9951,52	J0JCC0000100	CHIP INDUCTOR	2	
R9954-57	J0JCC0000100	CHIP INDUCTOR	4	
R9959,60	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	2	
R9961	ERJ6ENF1621	M1.62KOHM, 1/10W	1	
R9962	ERJ6ENF1001	M 1KOHM, 1/10W	1	
R9963	J0JCC0000100	CHIP INDUCTOR	1	
R9964	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9965	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R9966	J0JCC0000100	CHIP INDUCTOR	1	
R9969	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9970	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9971	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9972	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9975	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	1	
R9976	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9979	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9984-88	J0JCC0000100	CHIP INDUCTOR	5	
R9990	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9991	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9992	ERJ3GEYJ331	M 330 OHM,J,1/16W	1	
R9993	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R9996	ERJ6GEY0R00	M 0 OHM, 1/10W	1	
R9998	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
RL401	K6B1AGA00086	RELAY	1	
RL402	K6B1AGA00177	REALY	1	

RL901	K6B2ADA00007	REALY	1	⚠
RM001	PNA4601M05TV	REMOCO RECEIVER	1	
RTL	TNPA2826	CIRCUIT BOARD J	1	⚠
RTL	TNPA2868AB	CIRCUIT BOARD S1	1	⚠
RTL	TNPA2890	CIRCUIT BOARD P	1	⚠
RTL	TNPA2903	CIRCUIT BOARD C1	1	⚠
RTL	TNPA2904	CIRCUIT BOARD C2	1	⚠
RTL	TNPA2905	CIRCUIT BOARD C3	1	⚠
RTL	TNPA2906	CIRCUIT BOARD C4	1	⚠
RTL	TNPA2907	CIRCUIT BOARD C5	1	⚠
RTL	TNPA2908	CIRCUIT BOARD C6	1	⚠
RTL	TNPA2911	CIRCUIT BOARD SU	1	⚠
RTL	TNPA2912	CIRCUIT BOARD SD	1	⚠
RTL	TNPA2919	CIRCUIT BOARD SS2	1	⚠
RTL	TNPA2920	CIRCUIT BOARD SS3	1	⚠
RTL	TNPA3003	CIRCUIT BOARD H3	1	⚠
RTL	TZTNP01QPSE	CIRCUIT BOARD D	1	⚠
RTL	TXN/Z10QBS	CIRCUIT BOARD Z	1	⚠
RTL	TZTNP020QMS	CIRCUIT BOARD HX	1	⚠
RTL	TXNHY10QBS	CIRCUIT BOARD HY	1	⚠
RTL	TXNPF10QMS	CIRCUIT BOARD PF	1	⚠
RTL	TXNSC10QMS	CIRCUIT BOARD SC	1	⚠
RTL	TXNSS10QMS	CIRCUIT BOARD SS	1	⚠
RTL	TXNV110QJS	CIRCUIT BOARD V1	1	⚠
S061	K0F162B00002	SWITCH	1	
S1550-54	EVQPBD05R	SWITCH	5	
SC2	K1KA06A00180	6P CONNECTOR	1	
SC12	K1KA06A00220	6P CONNECTOR	1	
SC13	TJS1A8840	8P CONNECTOR	1	
SC20	K1KA20A00180	20P CONNECTOR	1	

SC23	K1KA03A00213	3P CONNECTOR	1	
SC41-44	K1KB40B00015	40P CONNECTOR	4	
SC62	K1KA06A00220	6P CONNECTOR	1	
SD1-D4	K1MN96B00001	CONNECTOR	4	
SS11	K1KA07A00096	7P CONNECTOR	1	
SS12	K1KA10A00259	10P CONNECTOR	1	
SS21	K1KB07A00037	7P CONNECTOR	1	
SS31	K1KB07A00037	7P CONNECTOR	1	
SS32	K1KA20A00180	20P CONNECTOR	1	
SS34	K1KA03A00213	3P CONNECTOR	1	
SS35	TJS1A8840	8P CONNECTOR	1	
SS41	K1MN13B00020	13P CONNECTOR	1	
SS42	TJS1A8840	8P CONNECTOR	1	
SS48	K1MN13B00020	13P CONNECTOR	1	
SS51-56	K1MN13B00020	13P CONNECTOR	6	
SS57,58	K1KA07A00170	7P CONNECTOR	2	
SU1-U4	K1MN96B00001	CONNECTOR	4	
T401	G4D4A0000072	SWITCHING TRANSFORMER	1	
T402,03	ETS19AB1T6AG	SWITCHING TRANS	2	
T404	ETS28LZ126AD	SWITCHING TRANS	1	
T405	ETS49LM126AD	SWITCHING TRANS	1	
T406	G4D4A0000072	SWITCHING TRANSFORMER	1	
T407	ETQ11K5AZ	CHOKE TRANS	1	
T410	ETS25AD1J6AH	SWITCHING TRANS	1	
T901	ETS28AZ1E6AD	SWITCHING TRANS	1	
T6431	ETS13TB139AP	SWITCHING TRANS	1	
T6451	G4D1A0000072	SWITCHING TRANS	1	
T6471	G4D1A0000072	SWITCHING TRANS	1	
V34	K1KA08B00005	8P CONNECTOR	1	
VR6477	EVMEASA00B53	CONTROL 5KOHMB 0.3W	1	
VR6557	EVMEASA00B14	CONTROL 10KOHMB 0.3W	1	
VR6670	EVMEASA00B14	CONTROL 10KOHMB 0.3W	1	
VR6770	EVMEASA00B14	CONTROL 10KOHMB 0.3W	1	

X501	H2B400400021	CRYSTAL	1	
X3101	H0J202500002	CRYSTAL	1	
X9302	H0J200500016	CRYSTAL	1	
X9350	H0J327200038	CRYSTAL	1	
X9701	TSSA081	CRYSTAL	1	
X9702	H0J921400003	CRYSTAL	1	
X9703	H0J200500016	CRYSTAL	1	
Z5	K1KA11A00048	11P CONNECTOR	1	
Z6	K1KA04A00195	4P CONNECTOR	1	
Z7	K1KA03A00172	3P CONNECTOR	1	
Z8	K1KA20A00180	20P CONNECTOR	1	
ZA001-03	K4ZZ01000121	EARTH LUG	3	
ZA3001-08	K4ZZ01000121	EARTH LUG	8	
ZN401,02	D4EAD6210001	VARISTOR	2	

TOP PREVIOUS NEXT

18 Schematic Diagram for printing with A4 size

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

19 Cover for printing with A4

TOP PREVIOUS



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2.1.1 Leakage Current Cold Check

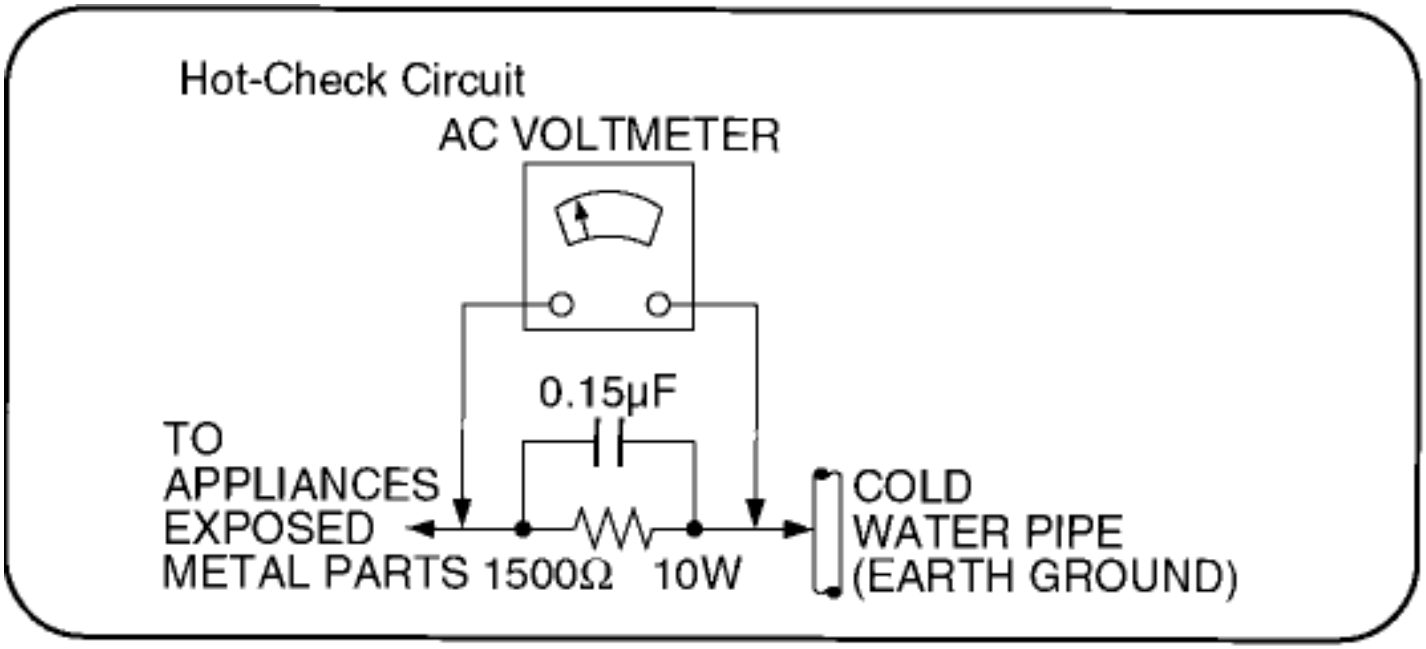
TOP PREVIOUS NEXT

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.

2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to thechassis, the reading should be between 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be

   ∞.

Figure 1



TOP PREVIOUS NEXT

2.1.2 Leakage Current Hot Check (See Figure 1 .)

TOP PREVIOUS NEXT

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.

2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1 .

3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.

4. Check each exposed metallic part, and measure the voltage at each point.

5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.

6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outsideof the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

TOP PREVIOUS NEXT

3 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

TOP PREVIOUS NEXT

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistorsand semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, whichshould be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparableconductive material).

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient todamage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

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4 About lead free solder (PbF)

TOP PREVIOUS NEXT

Note: Lead is listed as (Pb) in the periodic table of elements.

In the information below, Pb will refer to Lead solder, and PbF will refer to Lead Free Solder.

The Lead Free Solder used in our manufacturing process and discussed below is (Sn+Ag+Cu).

That is Tin (Sn), Silver (Ag) and Copper (Cu) although other types are available.

This model uses Pb Free solder in it s manufacture due to environmental conservation issues. For service and repair work, we d suggest the use of Pb free solder as well, although Pb solder may be used.

PCBs manufactured using lead free solder will have the PbF within a leaf Symbol

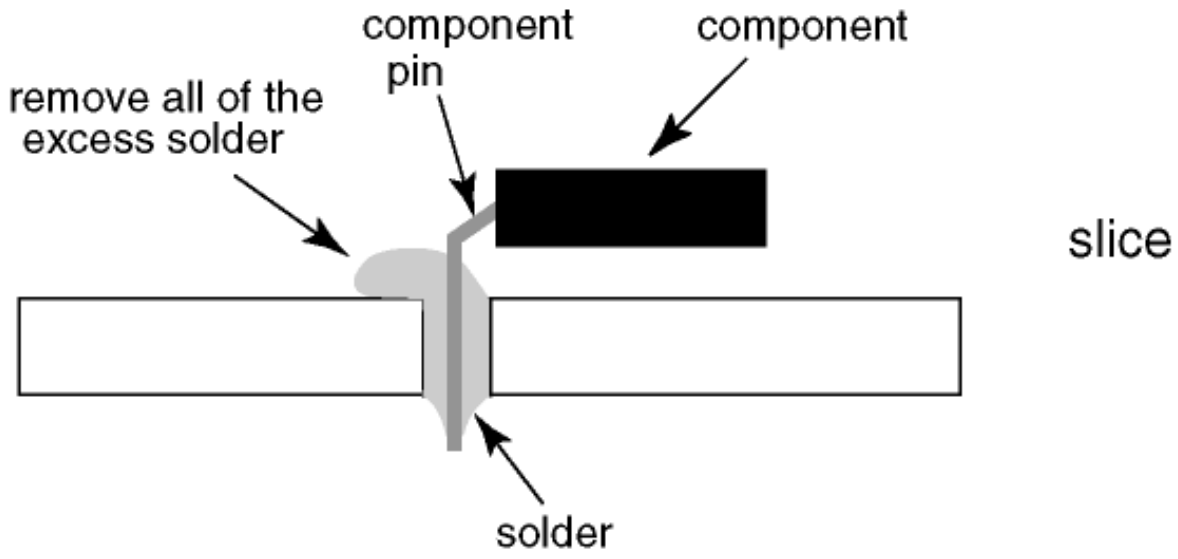


stamped on the back of PCB.

Caution

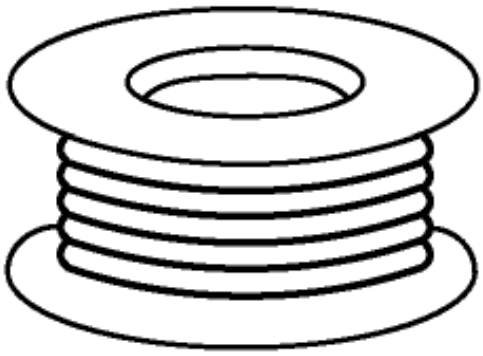
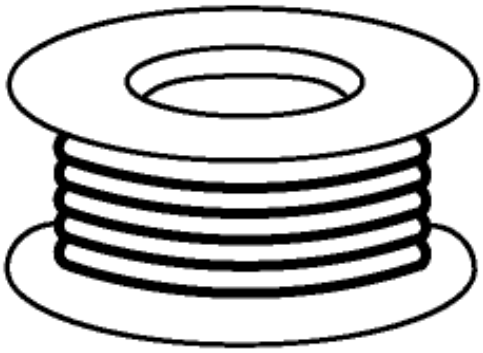
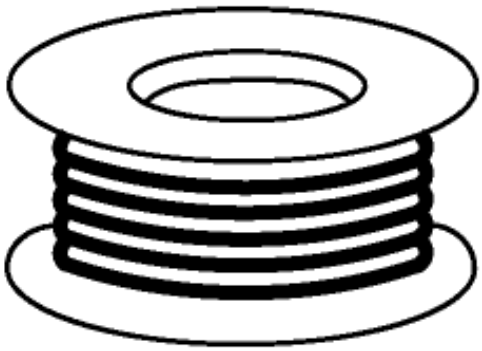
- Pb free solder has a higher melting point than standard solder. Typically the melting point is 50 ~ 70 °F (30~40 °C) higher. Please use a high temperature soldering iron and set it to 700 ± 20 °F (370 ± 10 °C).
- Pb free solder will tend to splash when heated too high (about 1100 °F or 600 °C).

  If you must use Pb solder, please completely remove all of the Pb free solder on the pins or solder area before applying Pb solder. If this is not practical, be sure to heat the Pb free solder until it melts, before applying Pb solder.
- After applying PbF solder to double layered boards, please check the component side for excess solder which may flow onto the opposite side. (see figure below)



Suggested Pb free solder

There are several kinds of Pb free solder available for purchase. This product uses Sn+Ag+Cu (tin, silver, copper) solder. However, Sn+Cu (tin, copper), Sn+Zn+Bi (tin, zinc, bismuth) solder can also beused.

0.3mm X 100g	0.6mm X 100g	1.0mm X 100g
		

TOP PREVIOUS NEXT

5 PCB Structure sheet of GPH6D2 chassis

TOP PREVIOUS NEXT

Board Name	Function	Remarks
D	Digital Signal Processor	1
J	Slot Interface & SYNC processor	1
Z	Audio out, DC-DC converter	
SS	Sustain Out	1
SC	Scan out	1
SU	Sustain connection (Upper)	1
SD	Sustain connection (Lower)	1
C1	Data Drive (Upper Right)	
C2	Data Drive (Upper Center)	
C3	Data Drive (Lower Left)	
C4	Data Drive (Lower Left)	
C5	Data Drive (Lower Center)	
C6	Data Drive (Lower Right)	
H3	Speaker terminal	
S1	Power switch	
SS2	Sustain connection (Upper)	
SS3	Sustain connection (Lower)	
V1	Front SW. & Remote receiver	
PF	Line filter	
P	Power supply	1
HX	PC_type_Input terminal	
HY	BNC Composite/Component Video	2
HZ	BNC Component Video	3

Remarks

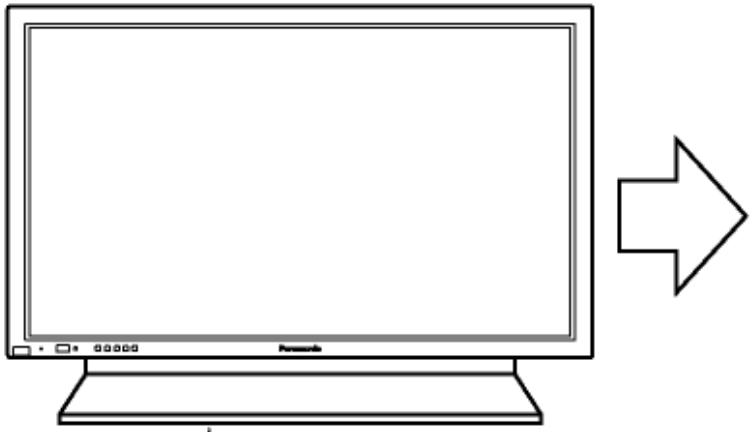
1. Recommend PCB´s for initial service for GPH6D2 chassis.
2. For System model except BX, EX version
3. For Consumer model except BX, EX version

TOP PREVIOUS NEXT

6 Service Hint

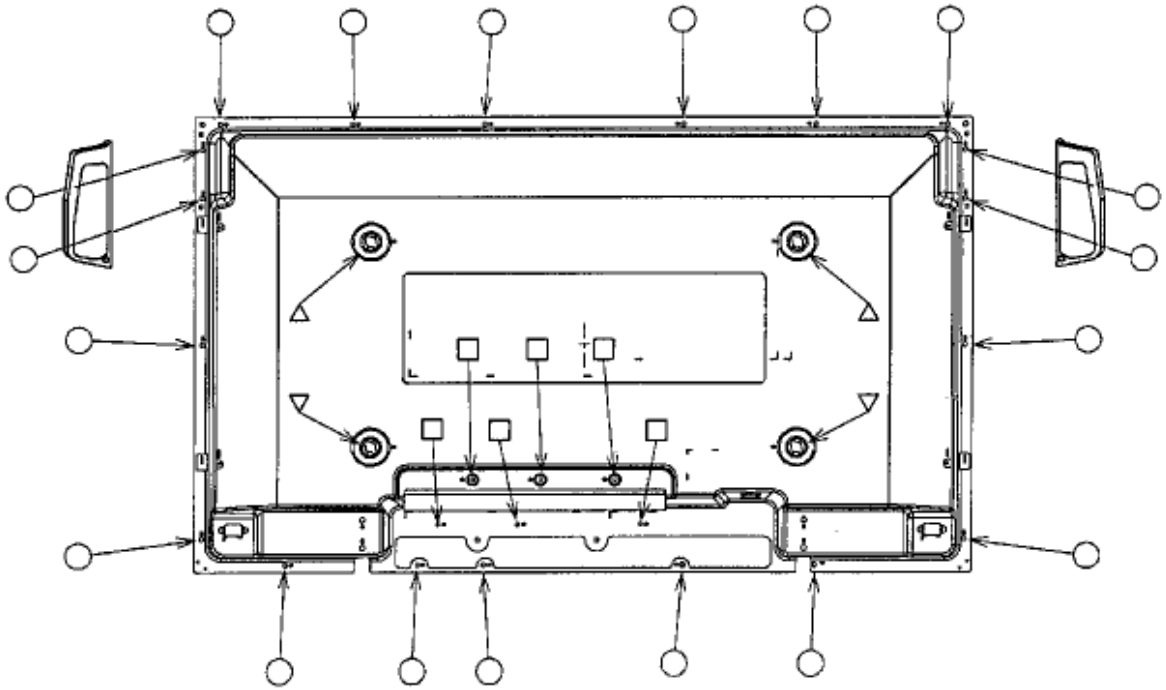
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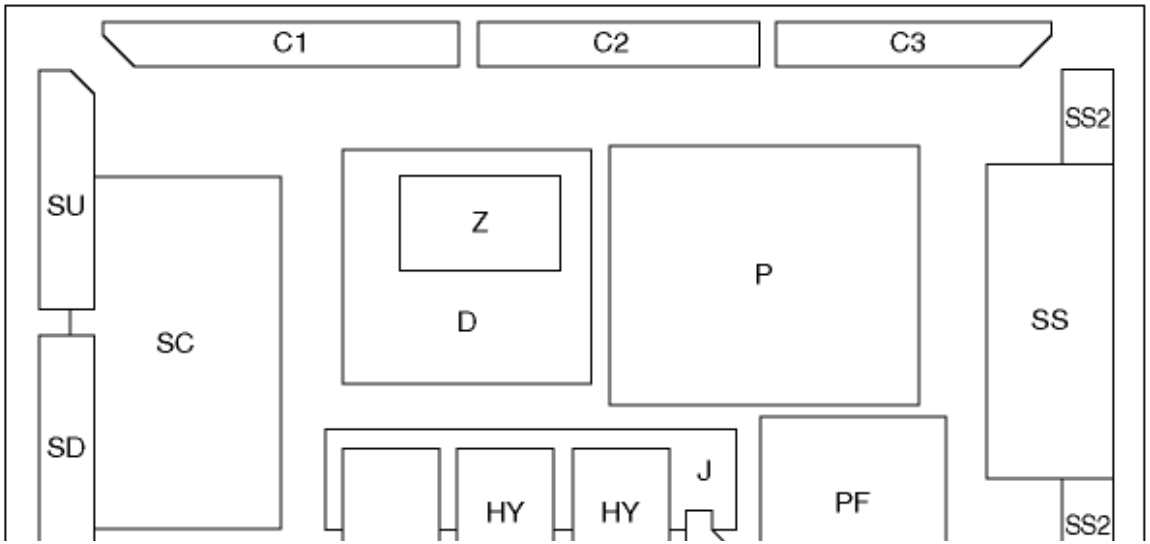
Stand the Unit used for Optional Accessory



Optional Accessory
(Pedestal)

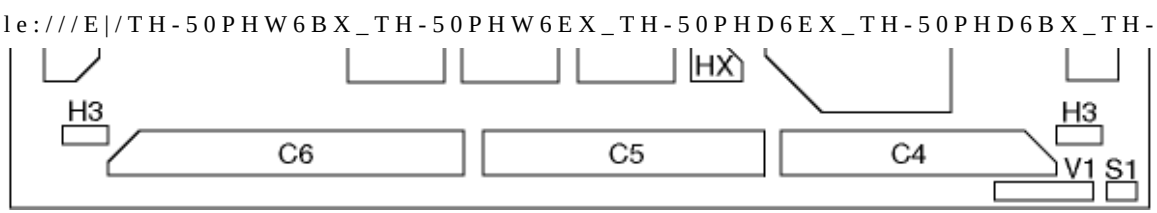
Remove the Back Cover





Remove: 4 screws (△) XYN8+F20FZ
6 screws (□) THEL023Z
19 screws (○) XYC4+FJ35FZ

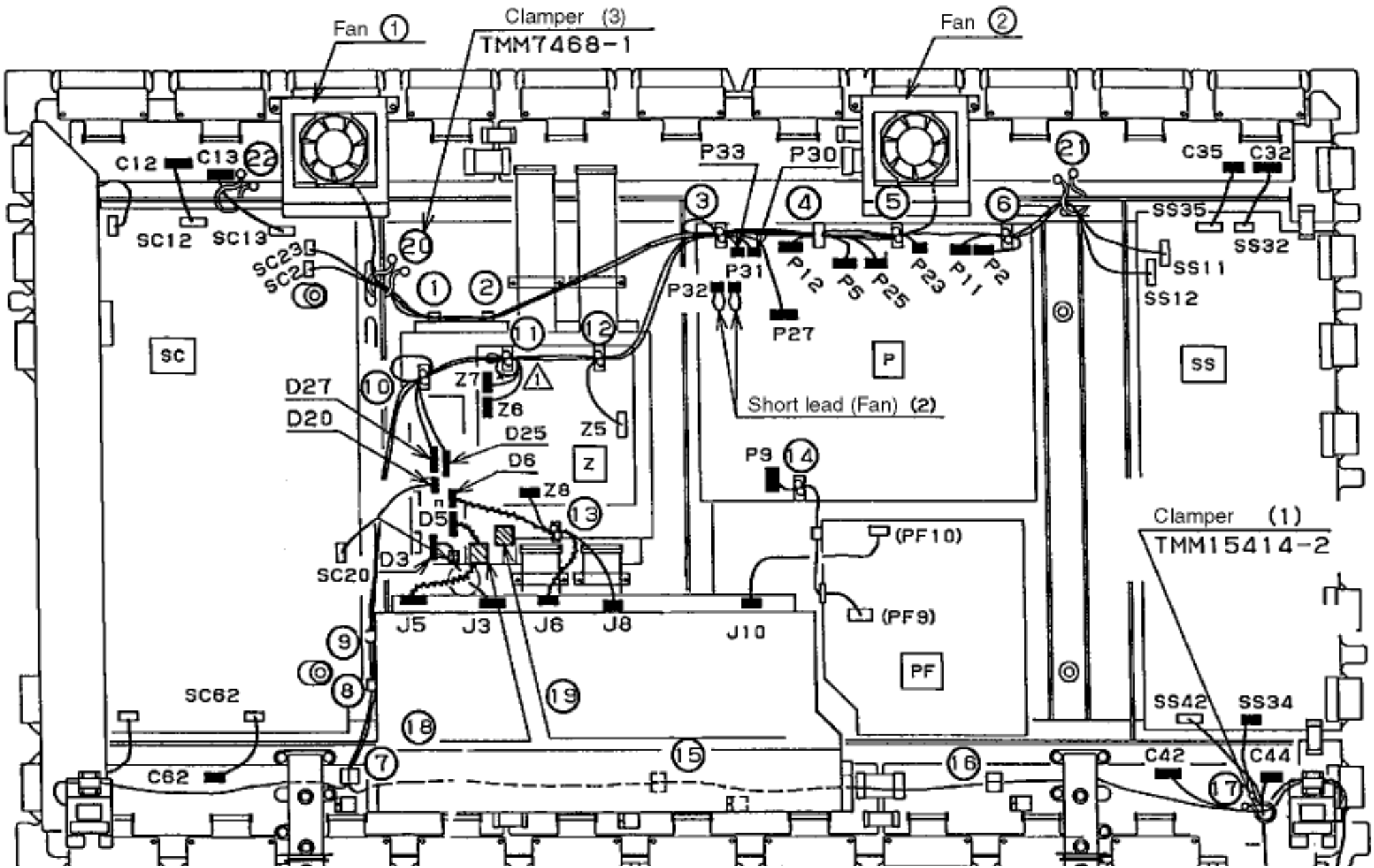
Service Position

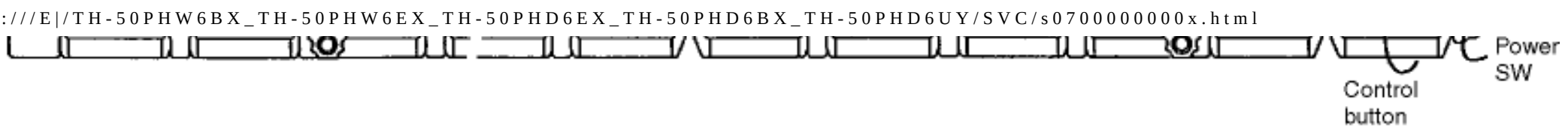


TOP PREVIOUS NEXT

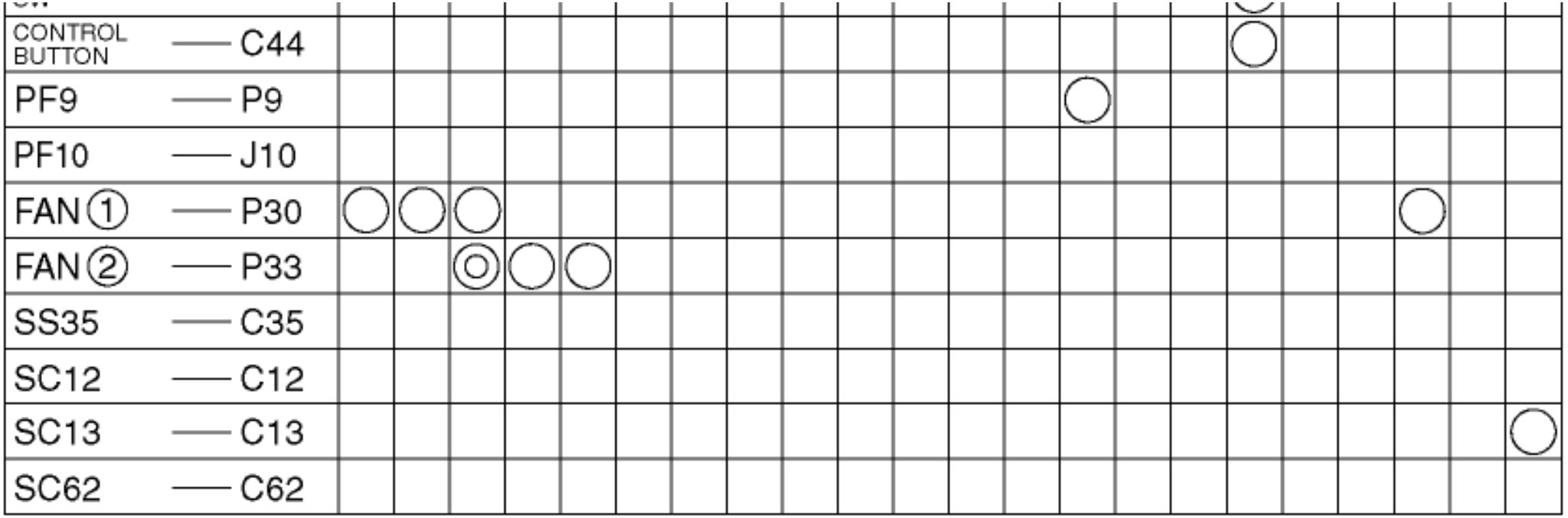
7 Location of Lead Wiring

TOP PREVIOUS NEXT





CON:NO. — CON:NO.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒
SC2 — P2	○	○	○	○	○	○														○		
SC23 — P23	○	○	○	○	○															○		
SC20 — D20																						
D27 — P27			○							◎	○	○										
D25 — P25			○	○						◎	○	○										
D3 — J3																						
D6 — J6													○									
Z8 — J8													○									
D5 — J5																		○				
Z5 — P5			○	○								○										
SP (SC SIDE) — Z7							○	○	○	○	◎											
SP (SS SIDE) — Z6							○	○	○	○	○				○	○	○					
SS12 — P12				○	○	○															○	
SS11 — P11						○															○	
SS42 — C42																	○					
SS32 — C32																						
POWER SW — SS34																	○					



◎ Wind up second times.

Connector Connection: P2, P5, P9, P11, P12, P23, P25, P27, P30, P31, P32, P33
Z6, Z7, Z8,
D3, D5, D6, D20, D25, D27
J3, J5, J6, J8, J10,
SS34,
C12, C13, C32, C35, C42, C44, C62

TOP PREVIOUS NEXT

8 Adjustment Procedure

TOP PREVIOUS NEXT

8.1 Driver Set-up

8.1.1 Item / Preparation

8.1.2 Adjustments

8.2 Initialization Pulse Adjust

8.3 P.C.B. (Printed Circuit Board) exchange

8.3.1 Caution

8.3.2 Quick adjustment after P.C.B. exchange

8.4 Adjustment Volume Location

8.5 Test Point Location

TOP PREVIOUS NEXT

8.1 Driver Set-up

TOP PREVIOUS NEXT

8.1.1 Item / Preparation

8.1.2 Adjustments

TOP PREVIOUS NEXT

8.1.1 Item/ Preparation

TOP PREVIOUS NEXT

1. Input an APL 100 % white signal.
2. Set the picture controls: -

   Picture mode: Normal

   White balance: Cool

   Aspect: 16:9

TOP PREVIOUS NEXT

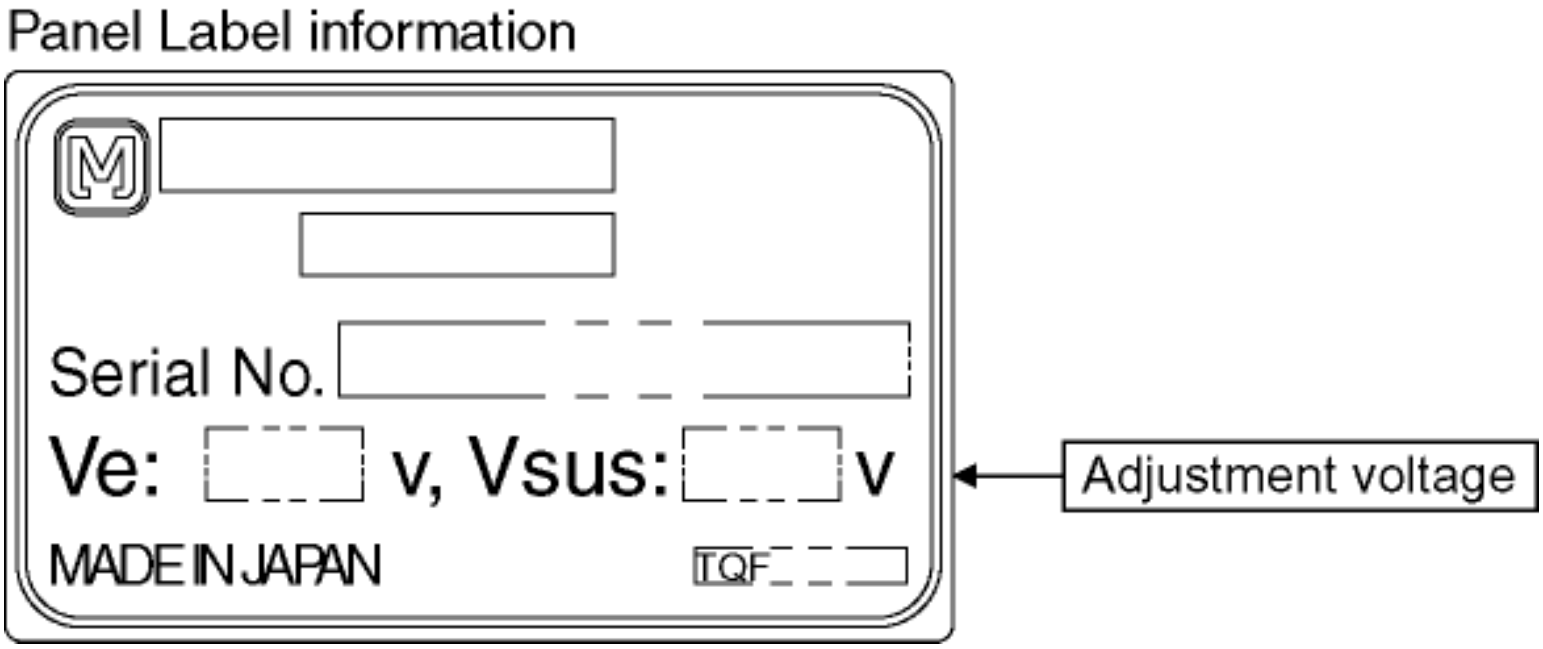
8.1.2 Adjustments

TOP PREVIOUS NEXT

Adjust driver section voltages referring the panel data on the panel data label.

Name	Test Point	Voltage	Volume	Remarks
Vsus	TPVSUS (SS)	173V ± 2V	VR641 (P)	
Vset	TPVSET (SC)	220V ± 5V	---	
Vbk	TPVBK (SC)	140V ± 1V	R6670 (SC)	
Vad	TPVAD (SC)	-85V ± 1V	R6477 (SC)	
Vscn	TPVSCN (SC)	Vad*+118V ± 2V	---	
Ve	TPVE (SS)	150V ± 1V	R6770 (SS)	
Vda	TPVDA (SS)	75V ± 1V	VR665 (P)	

*See the Panel label.



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8.2 Initialization Pulse Adjust

TOP PREVIOUS NEXT

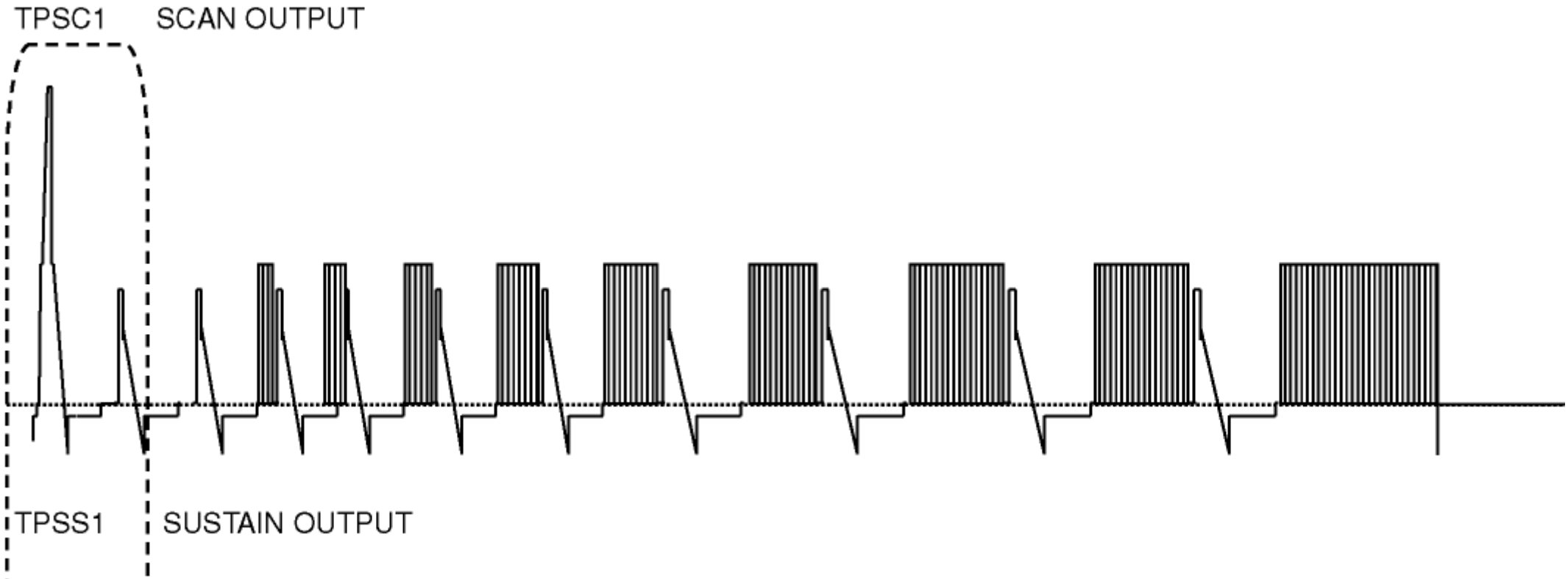
1. Input a Cross hatch signal.
2. Set the picture controls: -

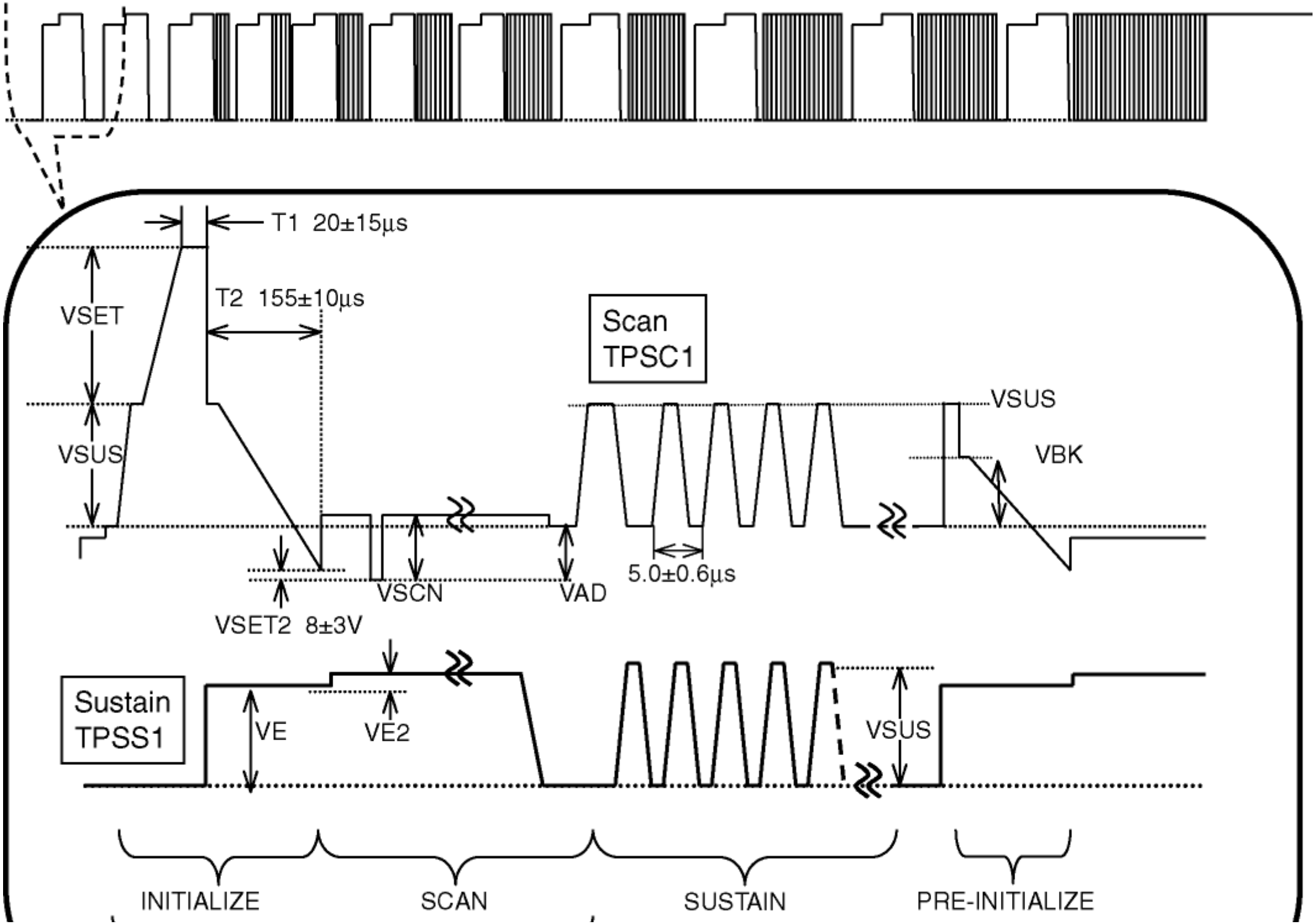
   Picture mode: Normal

   White balance: Cool

Adjust the indicated test point for the specified wave form.

	Test point	Volume	Level
T1	TPSC1 (SC)	---	20 ± 15µ Sec
T2	TPSS1 (SS)	R6557 (SC)	155 ± 10µ Sec




T1 20±15µs
T2 155±10µs
VSET
VSUS
Scan
TPSC1
VSUS
VBK
VSCN
VAD
5.0±0.6µs
VSET2 8±3V
Sustain
TPSS1
VE
VE2
VSUS
INITIALIZE
SCAN
SUSTAIN
PRE-INITIALIZE



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8.3 P.C.B. (Printed Circuit Board) exchange

TOP PREVIOUS NEXT

8.3.1 Caution

8.3.2 Quick adjustment after P.C.B. exchange

TOP PREVIOUS NEXT

8.3.1 Caution

TOP PREVIOUS NEXT

1. To remove P.C.B. , wait 1 minute after power was off for discharge from electrolysis capacitors.

TOP PREVIOUS NEXT

8.3.2 Quick adjustment after P.C.B. exchange

TOP PREVIOUS NEXT

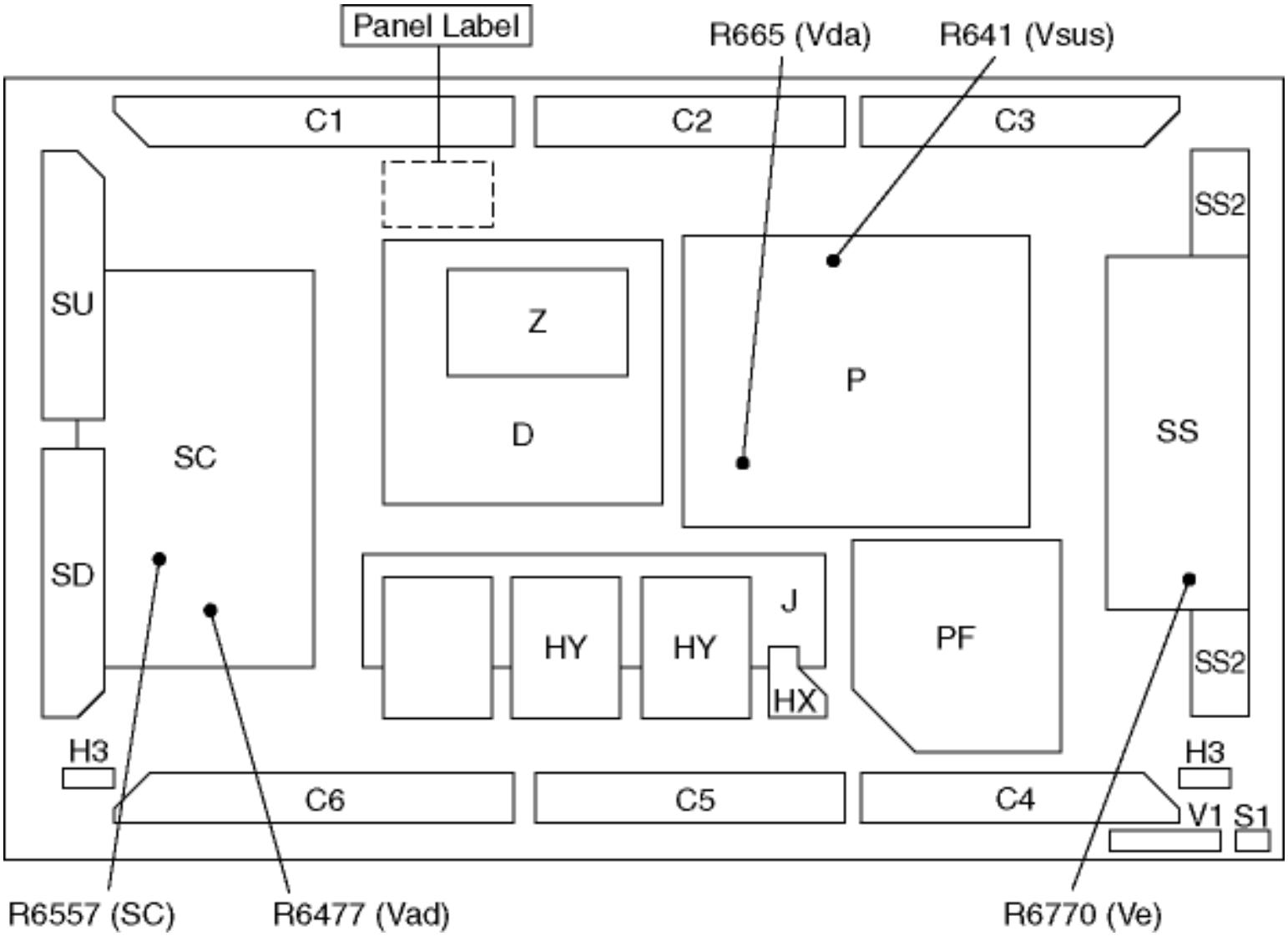
P.C.B.	Name	Test Point	Voltage	Volume	Remarks
P Board	Vsus	TPVSUS (SS)	173V ± 2V	R641 (P)	
	Vda	TPVDA (SS)	75V ± 1V	R665 (P)	
SC Board	Vad	TPVAD (SC)	85V ± 1V	R6477 (SC)	
	Vset	TPVSET (SC)	220V ± 5V	---	
	Vscn	TPVSCN (SC)	Vad + 118 ± 2V	---	
	Vbk	TPVBK (SC)	140 ± 1V	R6670 (SC)	
SS Board	Ve	TPVE (SS)	150V ± 1V	R6770 (SS)	
D, J Board	White blance, Pedestal and Sub brightness for NTSC, PAL, HD, PC and 625i signals				

*See the Panel label.

TOP PREVIOUS NEXT

8.4 Adjustment Volume Location

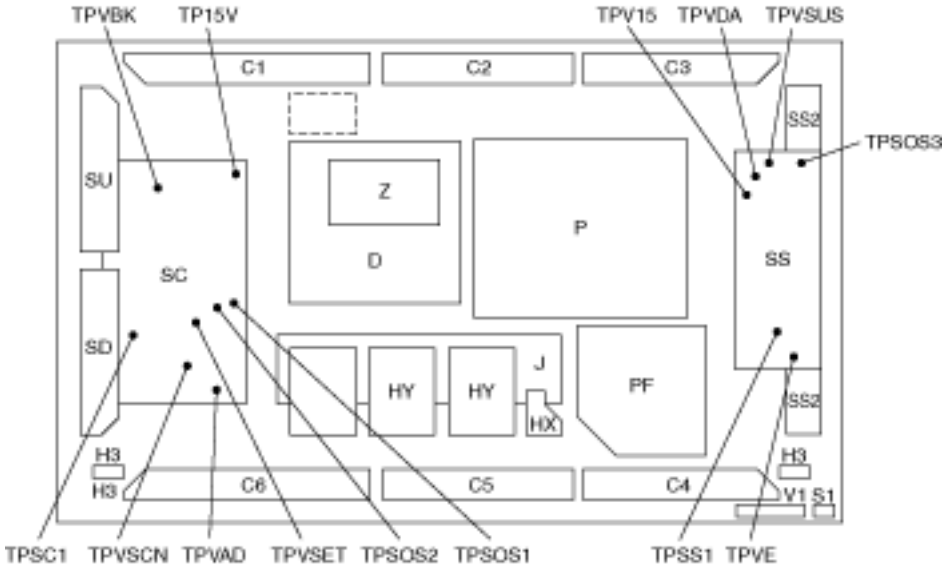
TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

8.5 Test Point Location

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

9 Service mode

TOP PREVIOUS NEXT

9.1 CAT (computer Aided Test) mode

9.1.1 IIC mode

9.1.2 CD mode

9.1.3 SD mode

9.2 IIC mode structure (following items value is sample data.)

TOP PREVIOUS NEXT

9.1 CAT (computer Aided Test) mode

TOP PREVIOUS NEXT

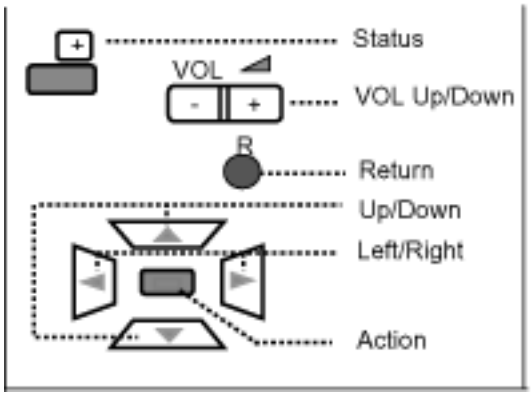
CAT mode menu

CAT Panel sys8.2

IIC Mode
CD Mode
SD Mode
MS Mode
ID Mode

Mode	Function	Access button
IIC	Service Alignment	Action
CD(Complete Diagnostics)	Software version information EEPROM edit	Mute more than 5 seconds
SD(Status Display)	MTBF parameter	Action
MS Mode	Not use	-----
ID	Not use	-----

Remote control



How to access the CAT mode.

Press and the hold the Volume down / - buton on the front panel of the unit and press the status button on the remote control 3 times quickly within 1 second, this will place the unit into the CAT mode.

To exit the CAT mode , access the ID mode and switch off the main power.

9.1.1 IIC mode

9.1.2 CD mode

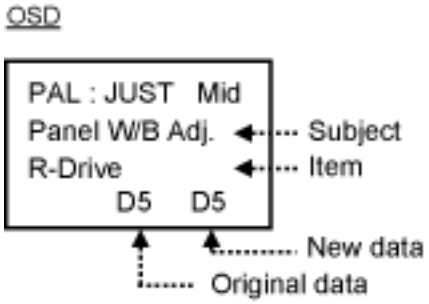
9.1.3 SD mode

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9.1.1 IIC mode

TOP PREVIOUS NEXT

Select the IIC mode by Up/Down button on the remote control at the front page of CAT mode then press the Action button on the remote control.



How to use the IIC mode.

1. Select the alignment **Subject** by **Up/Down buttons** on the remote control.
2 .Select the alignment **Item** by **Left/Right buttons** on the remote control.
3. Adjust **optimum setting** by **Volume Up/Down buttons** on the remote control.
4. The **data is memorized** when press the **R button** on the remote control or change the alignment Subject (or Items).

Subject and item are mentioned on page 14.

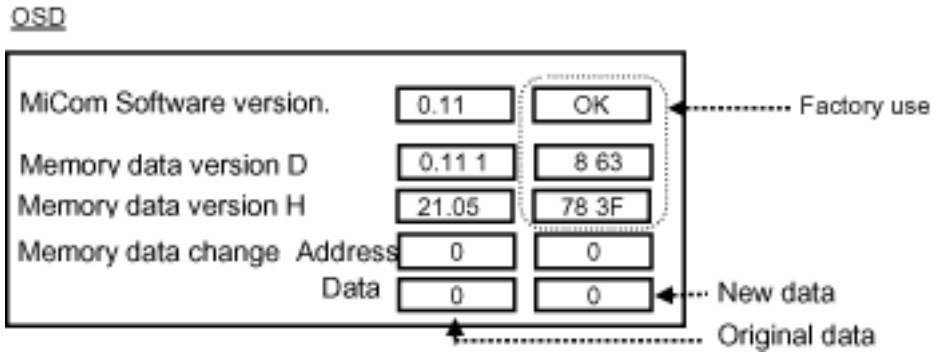
To exit the IIC mode, press the R button on the remote control.

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9.1.2 CD mode

TOP PREVIOUS NEXT

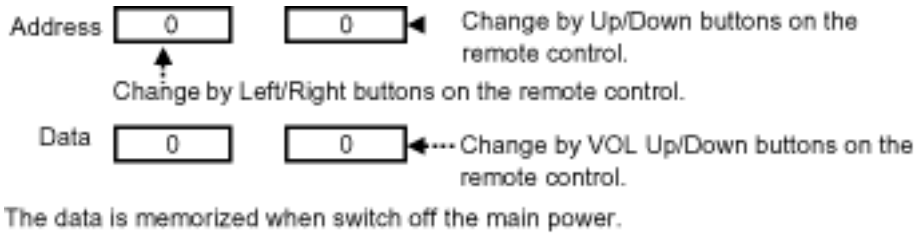
Select the CD mode by Up/Down button on the remote control at the front page of CAT mode then press the Mute button on the remote control more than 5 sec.



Micom software version (IC9705), this version can be upgrade by

1. replace of new version IC
2. Loading the new version software from loader tool, TZSC07036.

Memory data change



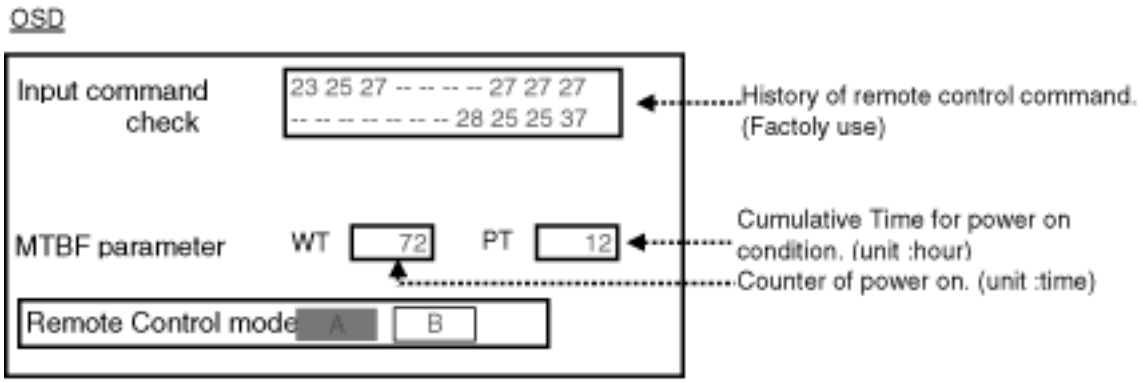
To exit the CD mode, press the R button on the remote control.

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9.1.3 SD mode

TOP PREVIOUS NEXT

Select the SD mode by Up/Down button on the remote control at the front page of CAT mode then press the Action button on the remote control.

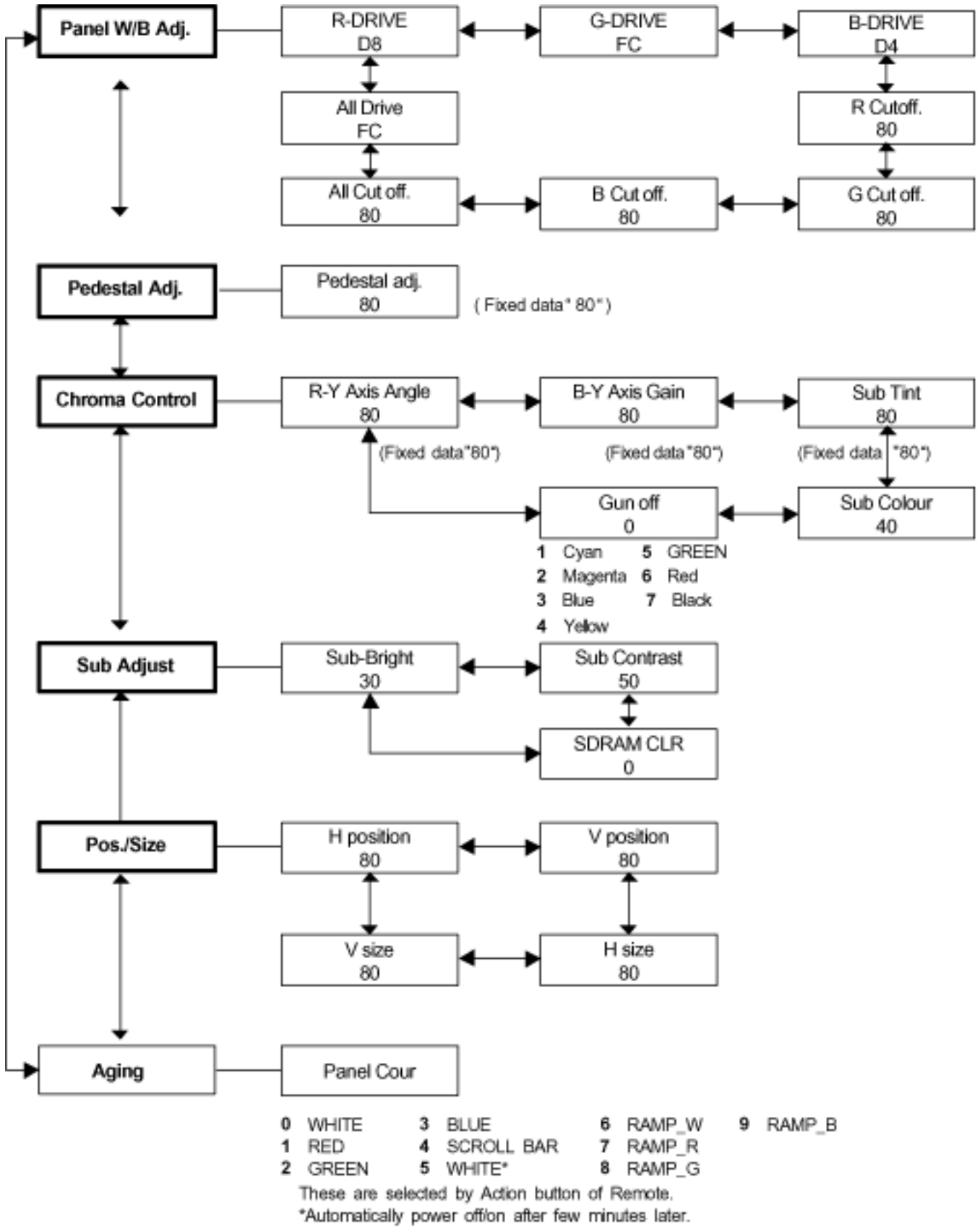


To exit the SD mode, press the R button on the remote control.

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9.2 IIC mode structure (following items value is sample data.)

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10 Alignment

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10.1 Pedestal setting (C)

10.2 Pedestal setting (B)

10.3 NTSC panel white balance

10.4 PAL / SECAM panel white balance

10.5 PC / RGB panel white balance

10.6 HD / 525i / 525p / 625I / 625P panel white balance

TOP PREVIOUS NEXT

10.1 Pedestal setting (C)

TOP PREVIOUS NEXT



Note:

OSD is the difference between UY model and Except UY model.
Picture: Normal (Except UY)/Standard (UY model)
White balance (Except UY)/Color Temp (UY model)

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10.2 Pedestal setting (B)

TOP PREVIOUS NEXT



Note:

OSD is the difference between UY model and Except UY model.
Picture: Normal (Except UY)/Standard (UY model)
White balance (Except UY)/Color Temp (UY model)

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10.3 NTSC panel white balance

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10.4 PAL/ SECAM panel white balance

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10.5 PC/ RGB panel white balance

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10.6 HD/ 525i/ 525p/ 625I/ 625P panel white balance

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11 Trouble shooting guide

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11.1 Self Check

11.2 No Power

11.2.1 Power LED Blinking timing chart

11.2.2 Power LED no light

11.3 No Picture

11.4 Local screen failure

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11.1 Self Check

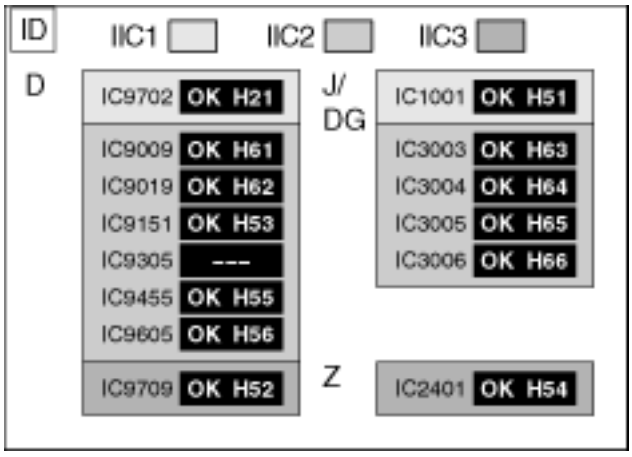
TOP PREVIOUS NEXT

1. Self-check is used to automatically check the bus line controlled circuit of the Plasma display.

2. To get into the Self-check mode, press the volume down button on the customer controls at the front of the set, at the same time pressing the OFF-TIMER button on the remote control, and the screen will show :-

If the CCU ports have been checked and found to be incorrect

Or not located then " - - " will appear in place of " OK "



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11.2 No Power

TOP PREVIOUS NEXT

11.2.1 Power LED Blinking timing chart

11.2.2 Power LED no light

TOP PREVIOUS NEXT

11.2.1 Power LED Blinking timing chart

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1. Subject

   Information of LED Flashing timing chart.

2. Contents

   When an abnormality has occurred the unit, the protection circuit operates and reset to the stand by mode. At this time, the defective block can be identified by the number of blinkes of the Power LED on the front panel of the unit.

Blinking times	Blinking timing	Contents & Check point
2		Data Driver
3		3.3V SOS
4		5V SOS
5		Power SOS
6		FAN
7		SCAN Driver
9		SUS Driver

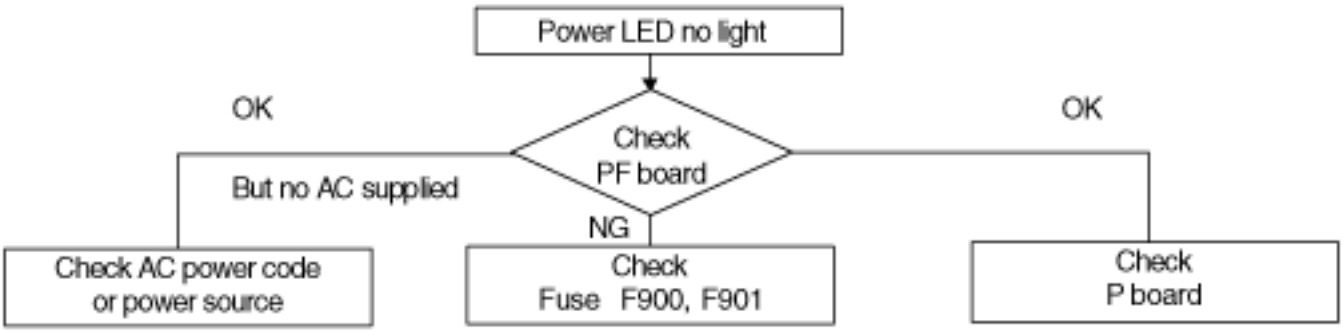
3. Remarks

   Above Fan function is operated during the fans are installed.

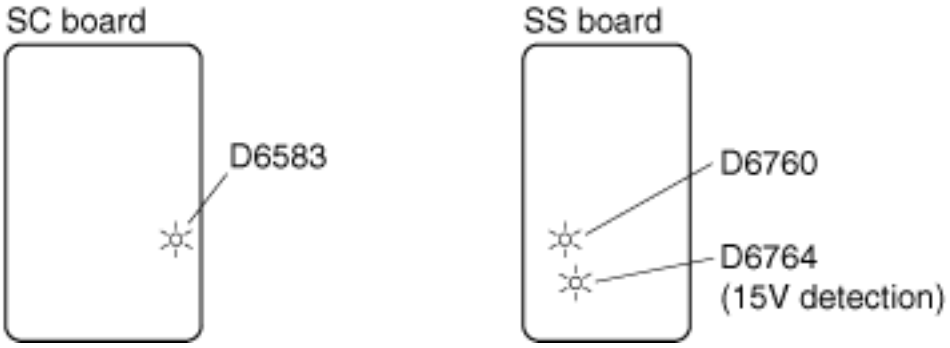
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11.2.2 Power LED no light

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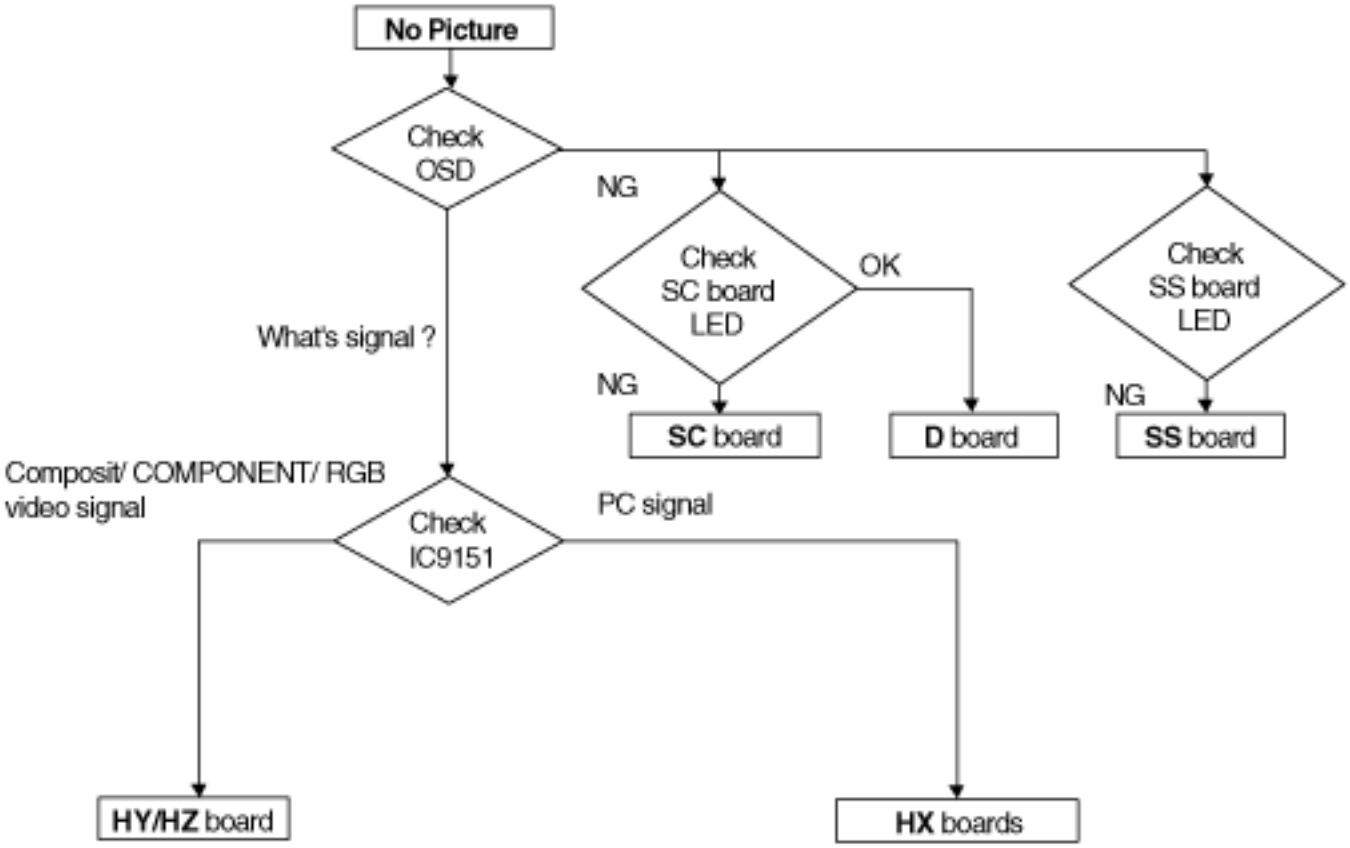
Drive circuits LED indicator



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11.3 No Picture

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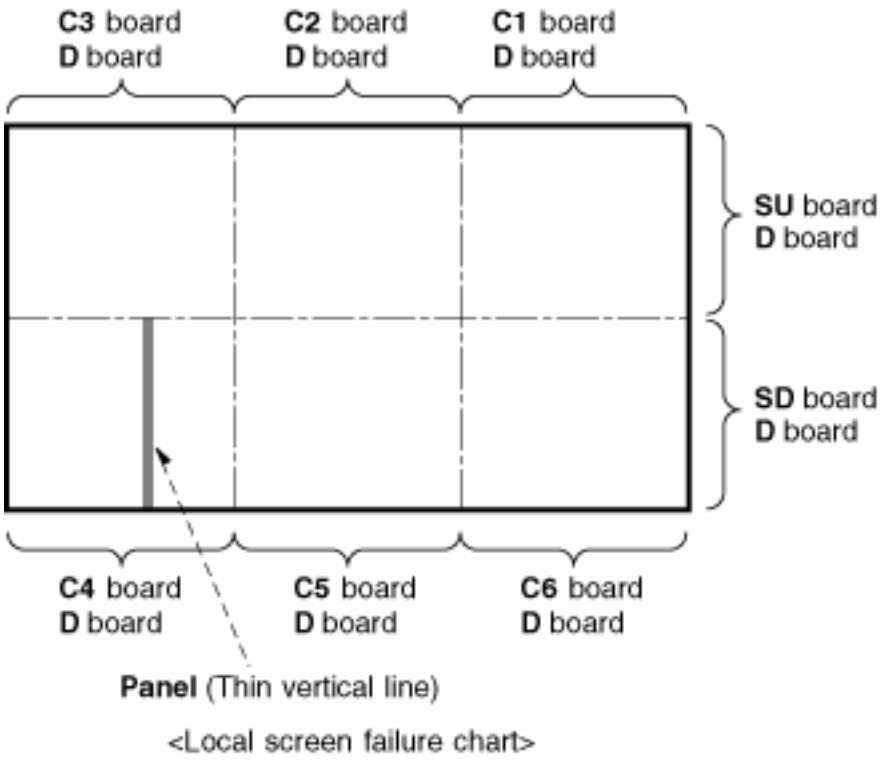
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11.4 Local screen failure

TOP PREVIOUS NEXT

Plasma display may have local area failure on the screen. Fig - 1 is the possible defect P.C.B. for each local area.

Fig - 1



<Local screen failure chart>

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12 Option Setting

TOP PREVIOUS NEXT

12.1 How to access and setting

12.2 Contents of Option Menu

TOP PREVIOUS NEXT

12.1 How to access and setting

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

12.2 Contents of Option Menu

TOP PREVIOUS NEXT

This chassis series have special function and operation setting facility called Option Menu. This Option Menu is useful for special function required customers. This should be set at the installation stage. The end user could not set or change these becauseof hidden On screen menu.

Option menus	default setting	Contents
Off-timer function	Enable	Off-timer operation Enable/Disable.
On Screen display	On	Enable/Disable to display input mode indication after power on and no signal indication.
Initial Input	Off	Sets the initial input mode when the power is turned on . Allow input mode selection while power is on.
Initial VOL. level	Off	Sets the initial volume level when the power is turned on. Allow Volume control while power is on.
Maximum VOL. Level	Off	Sets the maximum volume to desired level. Volume cannot exceed this level.
INPUT lock	Off	Fixes the input mode to AV, Component/RGB or PC. Can not change input mode by input selection key.
Button lock	Off	Enable/Disable front operation buttons (Input and/or volume up/down)
Studio W/B	Off	Set warm mode color temperature to 3,200 Kelvin.
Remocon User Level	Off	Remote key invalidation. Off : Valid key is all key of remote. User1 : Valid key are only Stand-by (ON/OFF), Input, Status, Surround, Sound mute On/Off, and volume adjustment. User2: Valid key is only Stand-by (ON/OFF). User3 : All keys are null and void
ID Select	0 to 100	Set ID number from 001 to 100.
Remote ID	Off	Remote ID function On/Off. (While the Remote ID on, standard remote function can not control the unit.)
Serial	Off	Serial ID function On/Off
Slot power	Off	Sets the slot power mode the power is turned on. Allow Optional Terminal Board insert Slots while power is on.

Note :

How to set Remocon User Level and Remote ID off

1. Access service mode (CAT-mode) and press SET UP key on remote.
2. Accsess option menu.
3. Change Remocon User Level and/ or Remote ID set to Off.

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13 Conductor Views

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13.1 PF-Board

13.2 P-Board

13.3 HX-Board

13.4 HY-Board

13.5 J-Board

13.6 D-Board

13.7 C1-Board

13.8 C2-Board

13.9 C3-Board

13.10 C4-Board

13.11 C5-Board

13.12 C6-Board

13.13 SC-Board

13.14 SU-Board

13.15 SD-Board

13.16 SS, SS2 and SS3-Board

13.17 Z-Board

13.18 V1, S1 and H3-Board

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13.1 PF-Board

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TOP PREVIOUS NEXT

13.2 P-Board

TOP PREVIOUS NEXT





TOP PREVIOUS NEXT

13.3 HX-Board

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

13.4 HY-Board

TOP PREVIOUS NEXT





TOP PREVIOUS NEXT

13.5 J-Board

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

13.6 D-Board

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TOP PREVIOUS NEXT

13.7 C1-Board

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

13.8 C2-Board

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

13.9 C3-Board

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

13.10 C4-Board

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TOP PREVIOUS NEXT

13.11 C5-Board

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13.12 C6-Board

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

13.13 SC-Board

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

13.14 SU-Board

TOP PREVIOUS NEXT



TOP PREVIOUS NEXT

13.15 SD-Board

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13.16 SS, SS2 and SS3-Board

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TOP PREVIOUS NEXT

13.17 Z-Board

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13.18 V1, S1 and H3-Board

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14.3 P and PF-Board Block Diagram

14.4 PF-Board Schematic Diagram

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14.6 P-Board (2 of 6) Schematic Diagram

14.7 P-Board (3 of 6) Schematic Diagram

14.8 P-Board (4 of 6) Schematic Diagram

14.9 P-Board (5 of 6) Schematic Diagram

14.10 P-Board (6 of 6) Schematic Diagram

14.11 HX-Board Block Diagram

14.12 HX-Board Schematic Diagram

14.13 HY-Board Block Diagram

14.14 HY-Board (1 of 3) Schematic Diagram

14.15 HY-Board (2 of 3) Schematic Diagram

14.16 HY-Board (3 of 3) Schematic Diagram

14.17 J-Board Block Diagram

14.18 J-Board (1 of 4) Schematic Diagram

14.19 J-Board (2 of 4) Schematic Diagram

14.20 J-Board (3 of 4) Schematic Diagram

14.21 J-Board (4 of 4) Schematic Diagram

14.22 D-Board (1 of 2) Block Diagram

14.23 D-Board (2 of 2) Block Diagram

14.24 D-Board (1 of 15) Schematic Diagram

14.25 D-Board (2 of 15) Schematic Diagram

14.26 D-Board (3 of 15) Schematic Diagram

14.27 D-Board (4 of 15) Schematic Diagram

14.28 D-Board (5 of 15) Schematic Diagram

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14.32 D-Board (9 of 15) Schematic Diagram

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14.34 D-Board (11 of 15) Schematic Diagram

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14.36 D-Board (13 of 15) Schematic Diagram

14.37 D-Board (14 of 15) Schematic Diagram

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14.39 C1, C2, C3, C4, C5, C6 and V1-Board Block Diagram (1 of 2)

14.40 C1, C2, C3, C4, C5, C6 and V1-Board Block Diagram (2 of 2)

14.41 C1-Board (1 of 2) Schematic Diagram

14.42 C1-Board (2 of 2) Schematic Diagram

14.43 C2-Board Schematic Diagram

14.44 C3-Board (1 of 2) Schematic Diagram

14.45 C3-Board (2 of 2) Schematic Diagram

14.46 C4-Board (1 of 2) and V1-Board Schematic Diagram

14.47 C4-Board (2 of 2) Schematic Diagram

14.48 C5-Board Schematic Diagram

14.49 C6-Board (1 of 2) Schematic Diagram

14.50 C6-Board (2 of 2) Schematic Diagram

14.51 SC-Board Block Diagram

14.52 SC-Board (1 of 3) Schematic Diagram

14.53 SC-Board (2 of 3) Schematic Diagram

14.54 SC-Board (3 of 3) Schematic Diagram

14.55 SU-Board Block Diagram

14.56 SU-Board (1 of 2) Schematic Diagram

14.57 SU-Board (2 of 2) Schematic Diagram

14.58 SD-Board Block Diagram

14.59 SD-Board (1 of 2) Schematic Diagram

14.60 SD-Board (2 of 2) Schematic Diagram

14.61 SS, S1, SS2 and SS3-Board Block Diagram

14.62 SS-Board (1 of 2) and S1-Board Schematic Diagram

14.63 SS-Board (2 of 2), SS2 and SS3-Board Schematic Diagram

14.64 Z-Board and H3-Board Block Diagram

14.65 Z-Board (1 of 2) and H3-Board Schematic Diagram

14.66 Z-Board (2 of 2) Schematic Diagram

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14.1 Schematic Diagram Notes

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14.2 Main Block Diagram

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14.3 P and PF-Board Block Diagram

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14.4 PF-Board Schematic Diagram

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14.5 P-Board (1 of 6) Schematic Diagram

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14.6 P-Board (2 of 6) Schematic Diagram

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14.7 P-Board (3 of 6) Schematic Diagram

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14.8 P-Board (4 of 6) Schematic Diagram

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14.9 P-Board (5 of 6) Schematic Diagram

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14.10 P-Board (6 of 6) Schematic Diagram

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14.11 HX-Board Block Diagram

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14.12 HX-Board Schematic Diagram

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14.13 HY-Board Block Diagram

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14.14 HY-Board (1 of 3) Schematic Diagram

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14.15 HY-Board (2 of 3) Schematic Diagram

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14.16 HY-Board (3 of 3) Schematic Diagram

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14.17 J-Board Block Diagram

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14.18 J-Board (1 of 4) Schematic Diagram

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14.19 J-Board (2 of 4) Schematic Diagram

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14.20 J-Board (3 of 4) Schematic Diagram

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14.21 J-Board (4 of 4) Schematic Diagram

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14.22 D-Board (1 of 2) Block Diagram

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14.23 D-Board (2 of 2) Block Diagram

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14.24 D-Board (1 of 15) Schematic Diagram

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14.25 D-Board (2 of 15) Schematic Diagram

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14.26 D-Board (3 of 15) Schematic Diagram

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14.27 D-Board (4 of 15) Schematic Diagram

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14.28 D-Board (5 of 15) Schematic Diagram

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14.29 D-Board (6 of 15) Schematic Diagram

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14.30 D-Board (7 of 15) Schematic Diagram

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14.31 D-Board (8 of 15) Schematic Diagram

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14.32 D-Board (9 of 15) Schematic Diagram

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14.33 D-Board (10 of 15) Schematic Diagram

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14.34 D-Board (11 of 15) Schematic Diagram

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14.35 D-Board (12 of 15) Schematic Diagram

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14.36 D-Board (13 of 15) Schematic Diagram

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14.37 D-Board (14 of 15) Schematic Diagram

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14.38 D-Board (15 of 15) Schematic Diagram

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14.39 C1, C2, C3, C4, C5, C6 and V1-Board Block Diagram (1 of 2)

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14.40 C1, C2, C3, C4, C5, C6 and V1-Board Block Diagram (2 of 2)

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14.41 C1-Board (1 of 2) Schematic Diagram

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14.42 C1-Board (2 of 2) Schematic Diagram

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14.43 C2-Board Schematic Diagram

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14.44 C3-Board (1 of 2) Schematic Diagram

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14.45 C3-Board (2 of 2) Schematic Diagram

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14.46 C4-Board (1 of 2) and V1-Board Schematic Diagram

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14.47 C4-Board (2 of 2) Schematic Diagram

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TOP PREVIOUS NEXT

J-BOARD TNPA2826 (3/4)

TO Z-BOARD (Z8)

TO PF-BOARD (PF10)

TO D-BOARD (D3)

TO D-BOARD (D5)

TO D-BOARD (D6)

TO HY-BOARD (H1)

TO HY-BOARD (H2)

IC1001 C1DB00000274

IC3001 C0JBAR000241

IC3002 C0JBBR000002

IC3003 C1AB00000441

IC3004 C1AB00000454

IC951 C0CBAKG00003

IC952 C0CBAHG00005

IC3007 C0JBAS000109

Q3001 2SB0709A0L

Q3002 2SD0601A0L

Q3003 2SD0601A0L

AUDIO SW

IIC SW

EXPAND I/O

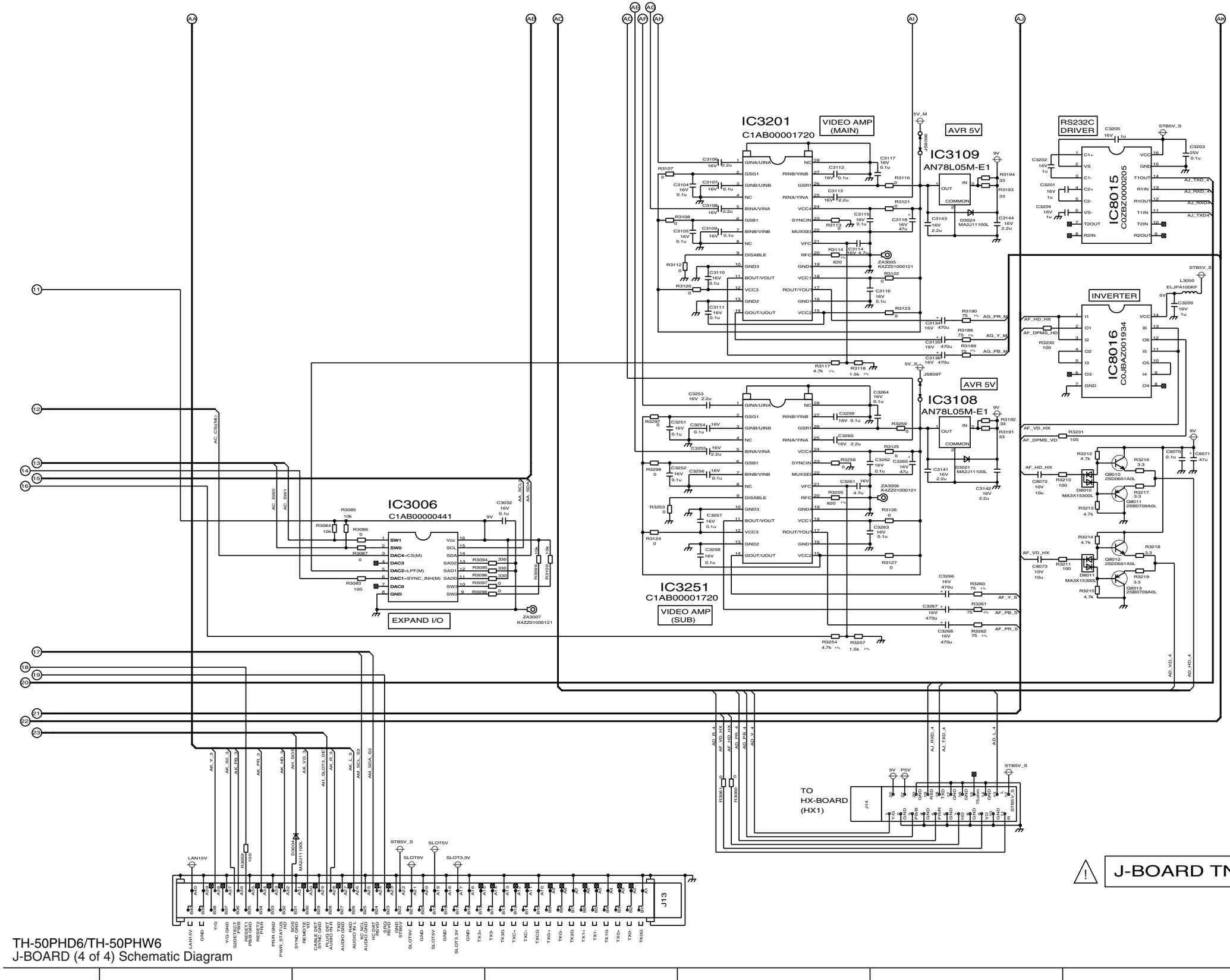
TIMER IC

AVR 12V

AVR 9V

SW

TH-50PHD6/TH-50PHW6 J-BOARD (3 of 4) Schematic Diagram



TH-50PHD6/TH-50PHW6
J-BOARD (4 of 4) Schematic Diagram

⚠ J-BOARD TNPA2826 (4/4)

TH-50PHD6/TH-50PHW6
J-BOARD (4 of 4) Schematic Diagram

8 9 10 11 12 13 14 15

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

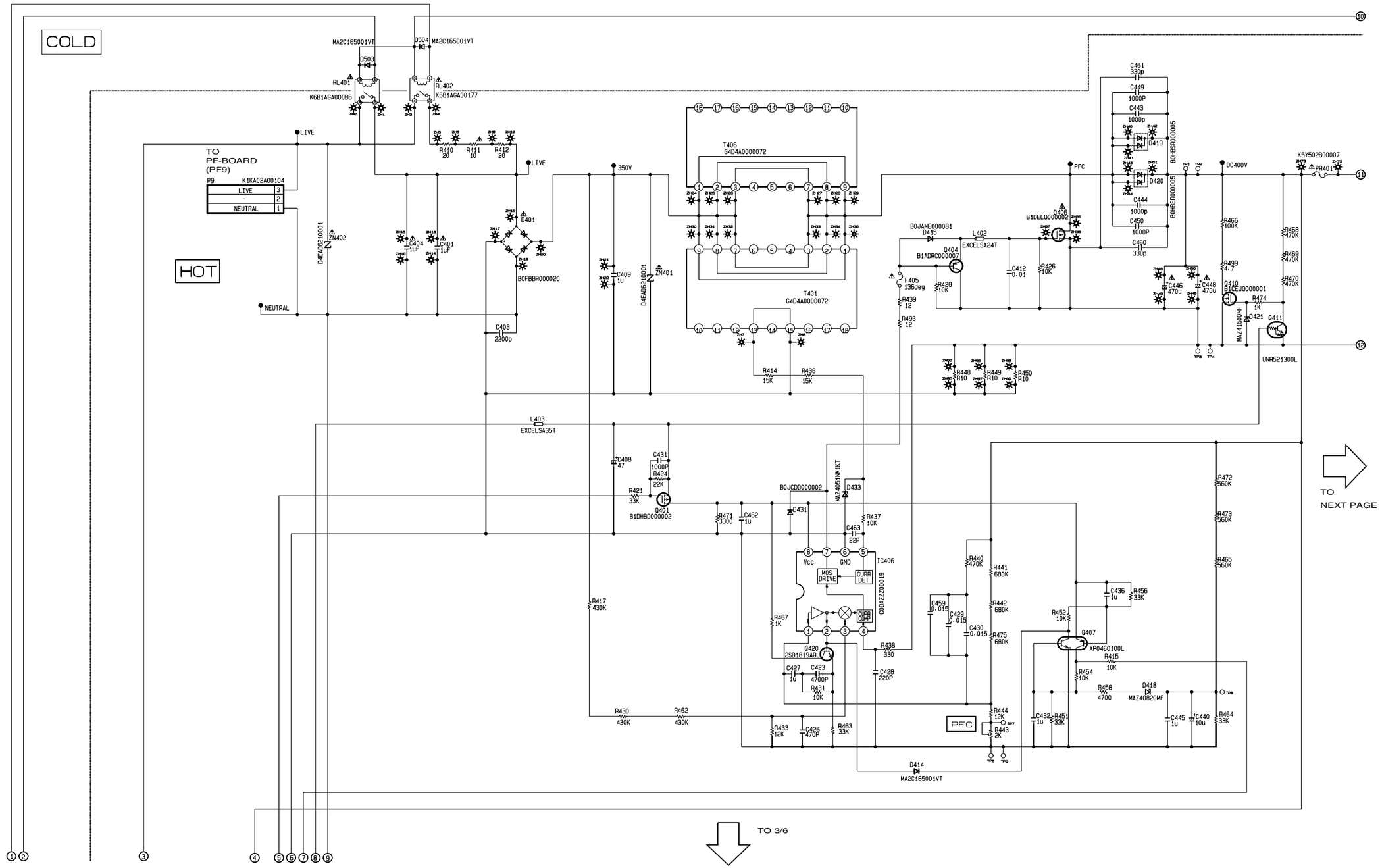
Notes:

1. **Resistor**
   All resistors are cabon 1/4W resistor, unless marked as follows:
   Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).
   - ◯ : Nonflammable
   - △ : Solid
   - ◪ : Wire Wound
   - ⊠ : Metal Oxide
   - ◎ : Metal Film
   - ⊗ : Fuse**:**
2. **Capacitor**
   All capacitors are ceramic 50V capacitor, unless marked as follows:
   Unit of capacitance is μF, unless otherwise noted.
   - ⊗ : Temperature Compensation
   - Ⓜ : Polyester
   - ⓜ : Metalized Polyester
   - ⊠ : Polypropylene
   -  : Electrolytic
   -  : Bipolar
   - Ⓣ : Dipped Tantalum
   - Ⓩ : Z-Type
3. Coil
   Unit of inductance is μF, unless otherwise noted.
4. Test Point
   - ⚲ : Test Point position
5. Earth Symbol
   - ⏚ : Chassis Earth (Cold)
   - ⏚ : Line Earth (Hot)
6. Voltage Measurement
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   - Power Source AC220-240V, 50/60Hz
   - Receiving Signal ..... Colour Bar signal (RF)
   - All customer's controls ..... Maximum positions
7. Number in red circle indicates waveform nember.
   (See waveform pattern table.)
8. When arrow mark (↗) is found, connection is easily found from the direction of arrow
9. Indicates the major signal flow. : Video ➡ Audio ⇨
10. This schematic diagram is the latest at the time of printing and subject to change without notice.

Remarks:

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection.
   The circuit is defined by HOT and COLD indications in the schematic diagram. Take the follwing precautions.
   All circuits, except the Power Circuit, are cold.
   Precautions
   a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
   b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
   c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
      Connect the earth of instruments to the earth connection of the circuit being measured.
   d. Make sure to disconnect the power plug before removing the chassis.
2. Following diodes are interchangeable.
   MA150- MA162 (Replacement part)

⚠ P-BOARD TNPA2890 (1/6)

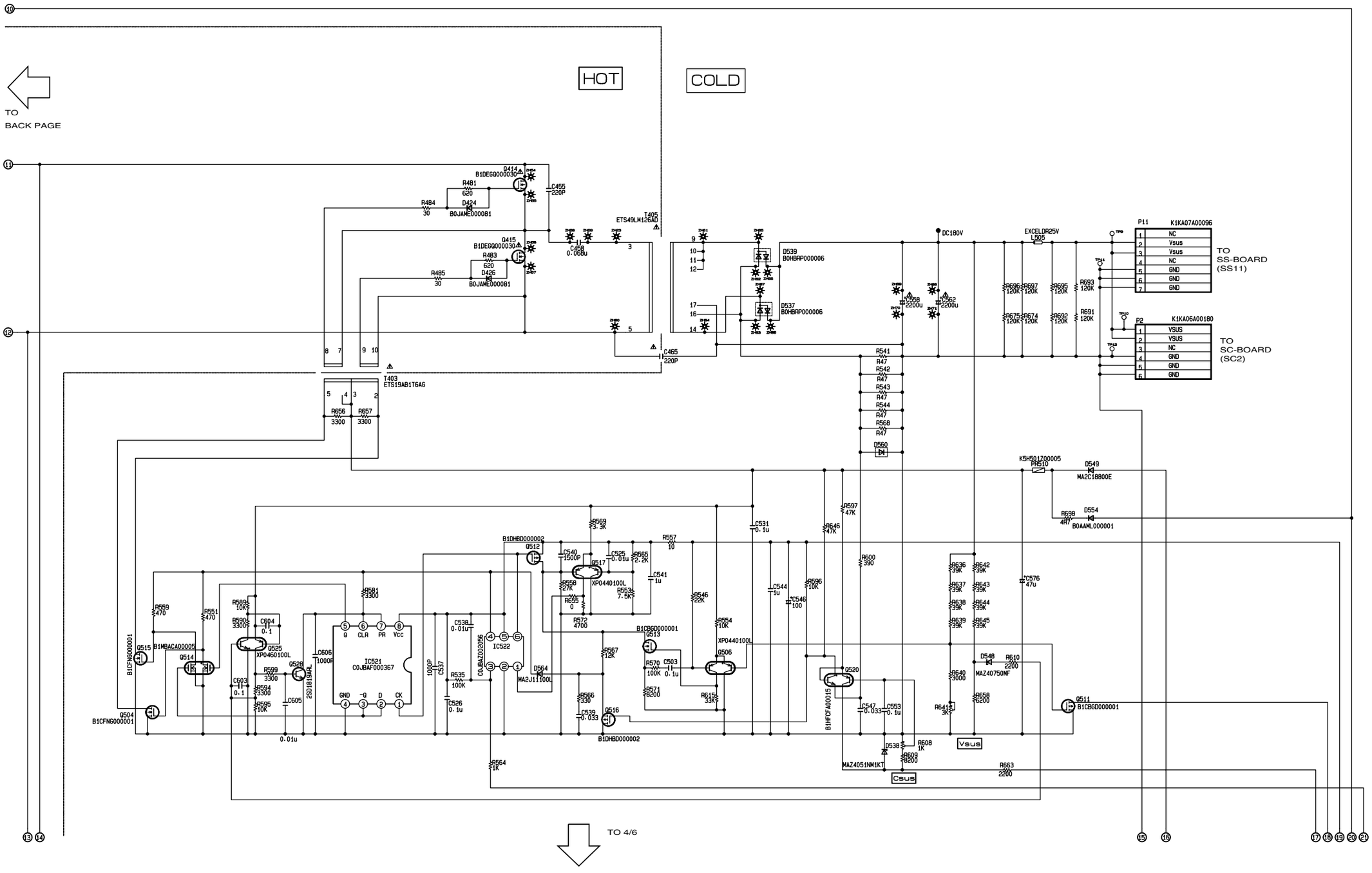


TH-50PHD6/TH-50PHW6
P-BOARD (1 of 6) Schematic Diagram

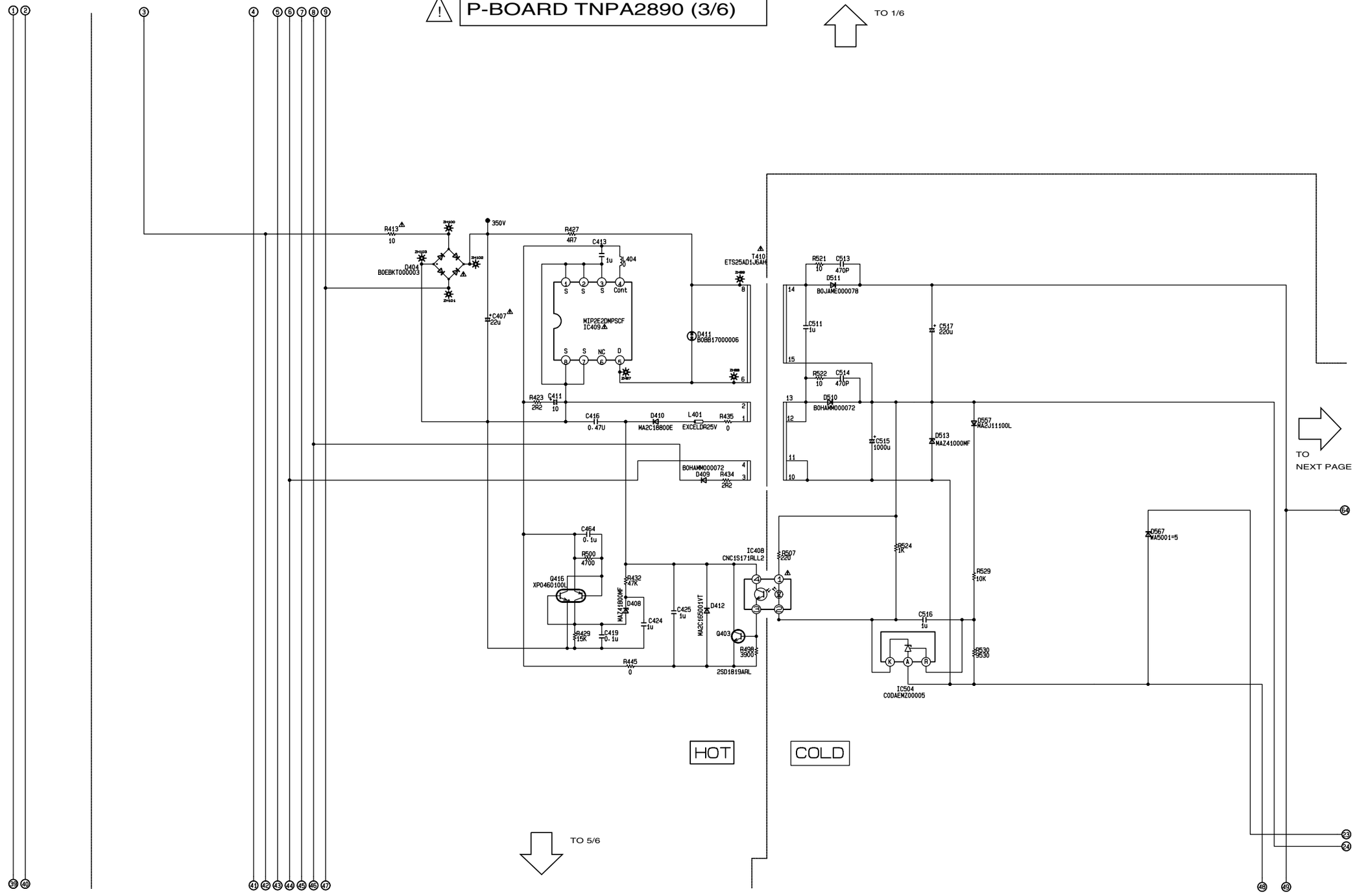
TH-50PHD6/TH-50PHW6
P-BOARD (1 of 6) Schematic Diagram

1 2 3 4 5 6 7 8

P-BOARD TNPA2890 (2/6)



P-BOARD TNPA2890 (3/6)



TH-50PHD6/TH-50PHW6
P-BOARD (3 of 6) Schematic Diagram

TH-50PHD6/TH-50PHW6
P-BOARD (3 of 6) Schematic Diagram

P-BOARD TNPA2890 (4/6)

HOT

TO BACK PAGE

TO 2/6

TO 6/6

COLD

TO SC-BOARD (SC23)

P23	K1KA03A00213
1	+15V
2	+15V
3	GND

TO SS-BOARD (SS12)

P12	K1KA10A00259
1	Vda
2	Vda
3	NC
4	+15V
5	GND
6	GND
7	GND
8	PS_GND
9	NC
10	STB_PS

TO Z-BOARD (Z5)

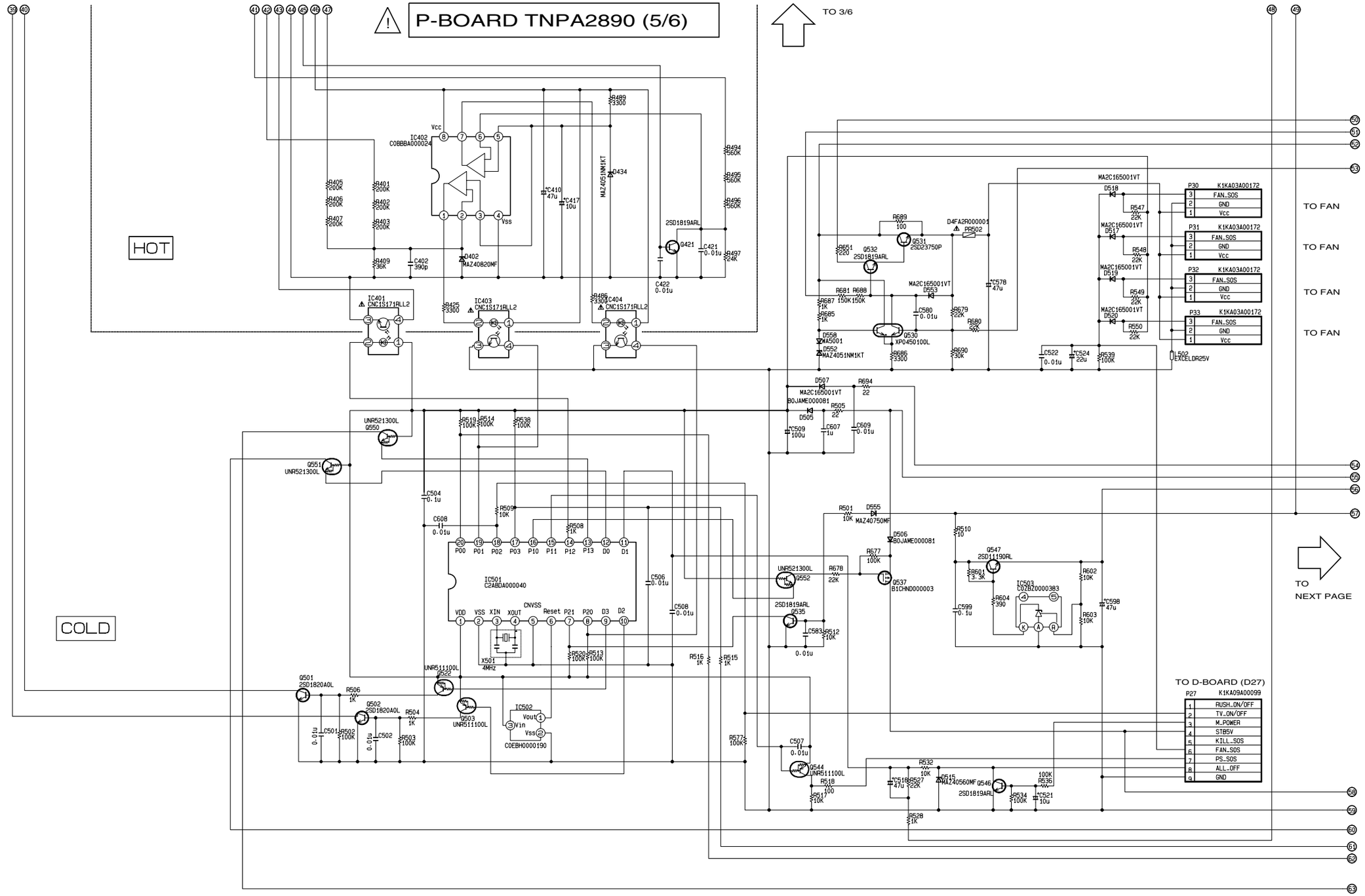
P5	K1KA11A00073
1	+12V
2	+12V
3	5V
4	STB5V
5	GND
6	GND
7	+12Vs
8	+12Vs
9	GNDs
10	GNDs
11	+15V

P7	K1KA04A00242
1	+15V
2	+15V
3	GNDs
4	GNDs

TO D-BOARD (D25)

P25	K1KA08A00221
1	+12V
2	+12V
3	GND
4	GND
5	5V
6	GND
7	FAN_CONT
8	STB7V

TH-50PHD6/TH-50PHW6
P-BOARD (4 of 6) Schematic Diagram



TH-50PHD6/TH-50PHW6
P-BOARD (5 of 6) Schematic Diagram

P-BOARD TNPA2890 (6/6)

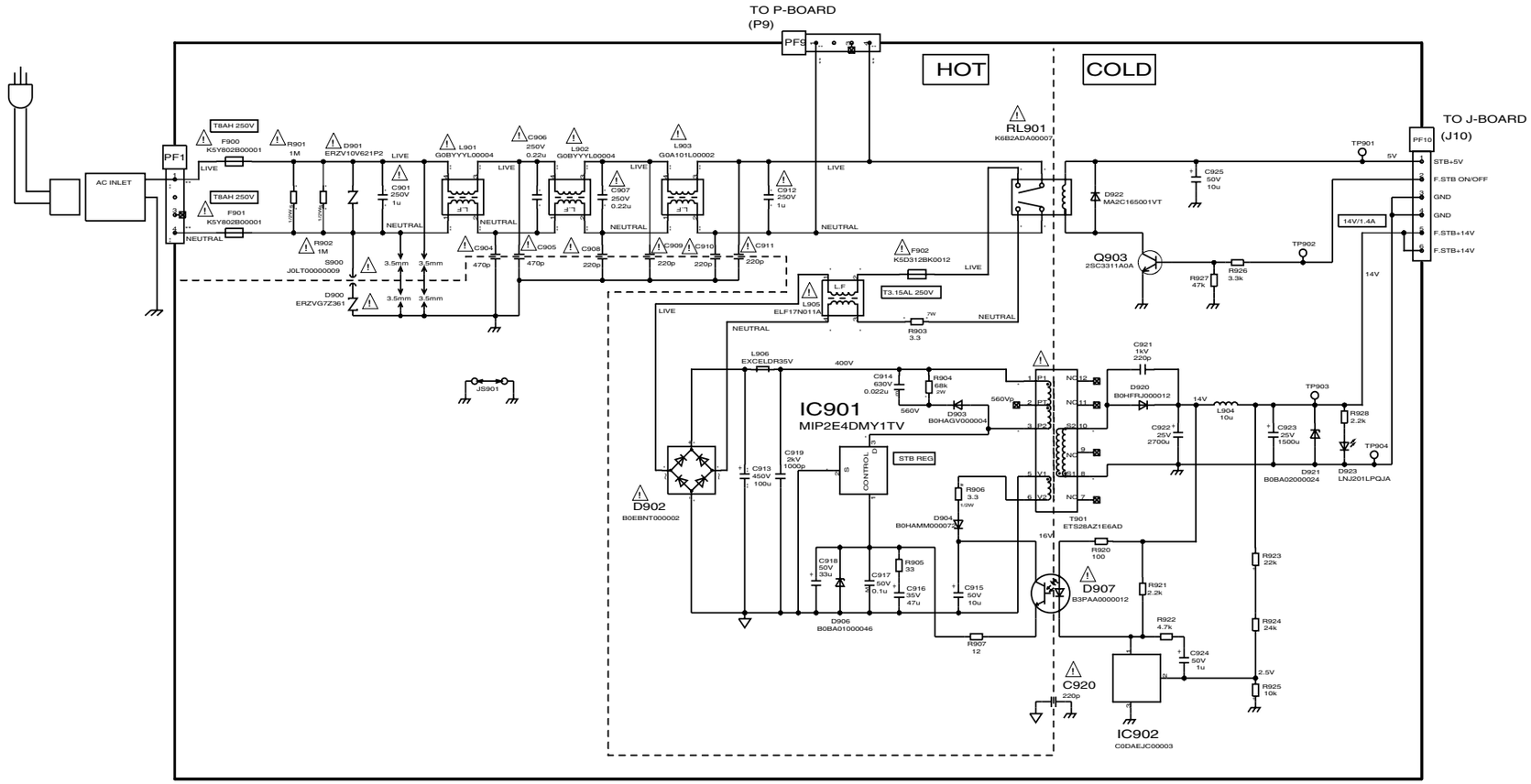
TO 4/6

TO
BACK PAGE

COLD

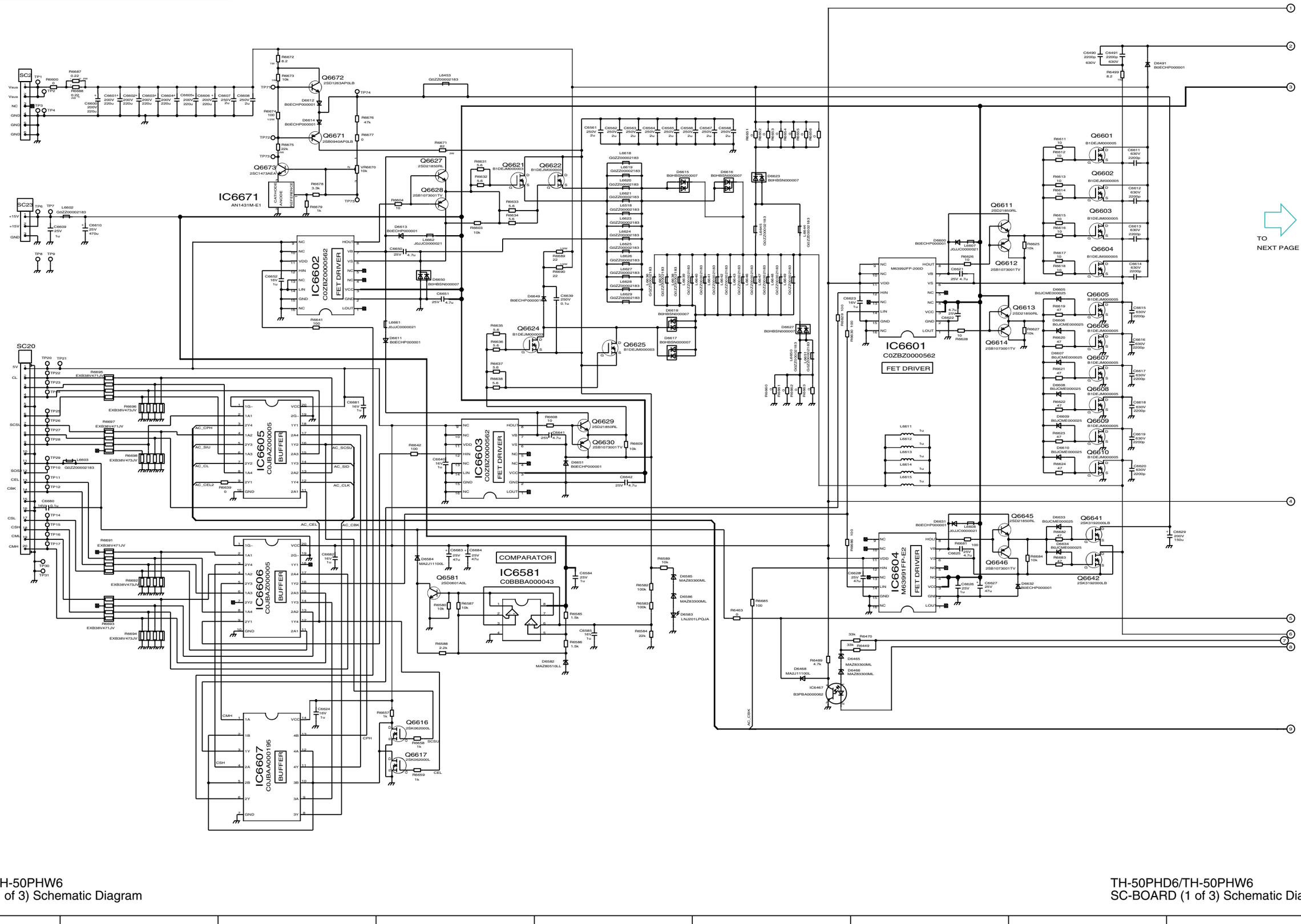
TH-50PHD6/TH-50PHW6
P-BOARD (6 of 6) Schematic Diagram

⚠ PF-BOARD TXNPF10QMS



TH-50PHD6/TH-50PHW6
PF-BOARD Schematic Diagram

SC-BOARD TXNSC10QMS (1/3)



TH-50PHD6/TH-50PHW6
SC-BOARD (1 of 3) Schematic Diagram

TH-50PHD6/TH-50PHW6
SC-BOARD (1 of 3) Schematic Diagram

SC-BOARD TXNSC10QMS (2/3)

TO BACK PAGE

TO NEXT PAGE

IC6505 B3PBA0000191
IC6506 B3PBA0000191
IC6507 B3PBA0000191
IC6508 B3PBA0000191
IC6509 B3PBA0000191
IC6510 B3PBA0000191
IC6503 B3PBA0000191
IC6504 B3PBA0000191
IC6501 C0JBAB000417 INVERTER
IC6502 C0JBAB000417 INVERTER
IC6455 AN78L05M-E1
IC6454 AN78L05M-E1
IC6453 AN78L15ME1
IC6543 AN78L05M-E1
IC6512 AN78L05M-E1
IC6491 AN1431M-E1
IC6434 B3PBA0000062
IC6456 B3PBA0000062
IC6459 B3PBA0000062
IC6457 B3PBA0000062
IC6458 B3PBA0000062
IC6480 B3PBA0000062
IC6511 C0ZBZ0000735 LOGIC
IC6521 C0ZBZ0000735 LOGIC
IC6541 C0ZBZ0000735 LOGIC
IC6542 C0ZBZ0000735 LOGIC
IC6431 AN1431M-E1
IC6451 AN1431M-E1
IC6471 AN1431M-E1
IC6472 AN1431M-E1
IC6452 AN78L15ME1
5V REG
15V REG
INIT-R
INIT-F

TH-50PHD6/TH-50PHW6
SC-BOARD (2 of 3) Schematic Diagram

SC-BOARD TXNSC10QMS (3/3)

TO BACK PAGE

TO SU-BOARD (SU45)

TO SD-BOARD (SD46)

TO C1-BOARD (C13)

TO C6-BOARD (C62)

TO C1-BOARD (C12)

SC41 SC42 SC43 SC44 SC45 SC46

AA_FSIU AA_FCLU AA_FCLKU AA_PROU

AA_FSID AA_FCLD AA_FCLKD AA_PROD

5V 15V 78V 75V 55V 40V 93V

Vda_75V

IC6802 C0ZBZ0000562 FET DRIVER

IC6805 C0ZBZ0000562 FET DRIVER

IC6803 C0ZBZ0000562 FET DRIVER

IC6801 C0JBAZ000005 BUFFER

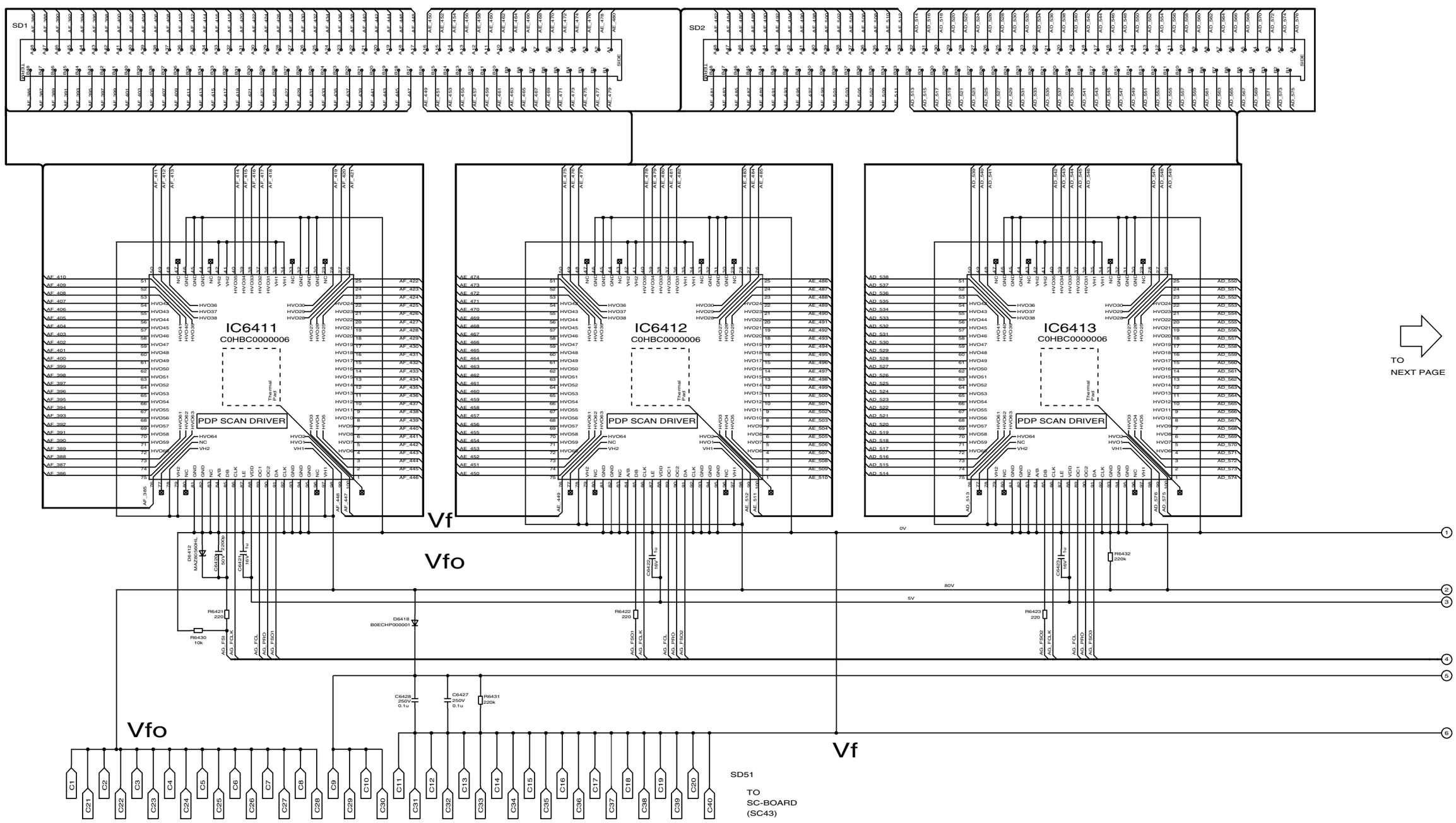
IC6804 C0BBBA000043 COMPARATOR

Q6811 2SK3269OOL
Q6812 2SK3269OOL
Q6824 2SK3269OOL
Q6822 2SD2185ORL
Q6823 2SB1073001TV
Q6817 2SD2185ORL
Q6818 2SB1073001TV
Q6819 2SD2185ORL
Q6820 2SB1073001TV
Q6813 2SK3269OOL
Q6814 2SK3269OOL
Q6815 2SK3269OOL
Q6816 2SK3269OOL
Q6821 2SB1193000LB

SC13 SC62 SC12

TH-50PHD6/TH-50PHW6
SC-BOARD (3 of 3) Schematic Diagram

⚠ SD-BOARD TNPA2912 (1/2)

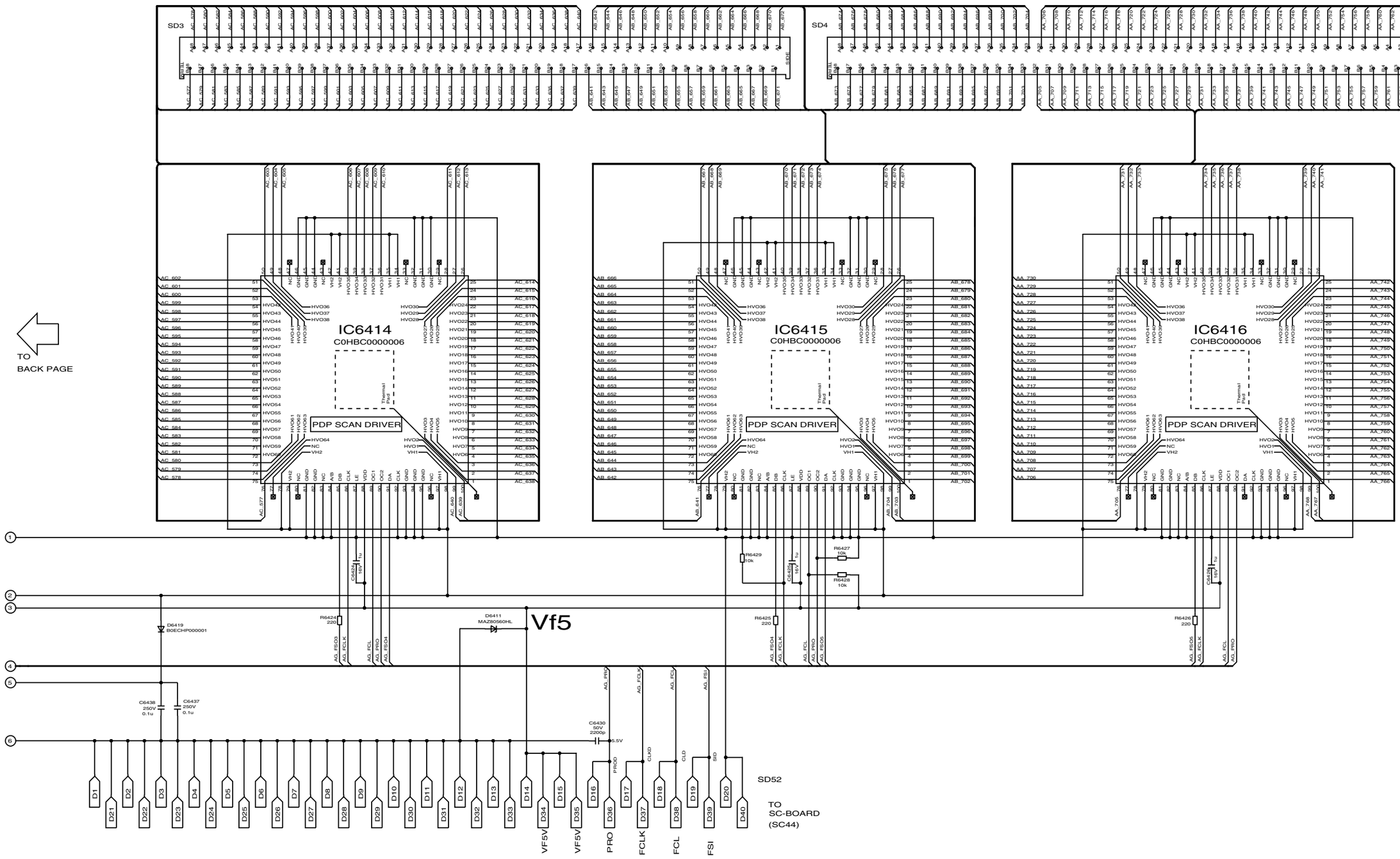


TH-50PHD6/TH-50PHW6
SD-BOARD (1 of 2) Schematic Diagram

TH-50PHD6/TH-50PHW6
SD-BOARD (1 of 2) Schematic Diagram

SD-BOARD TNPA2912 (2/2)

DOWN



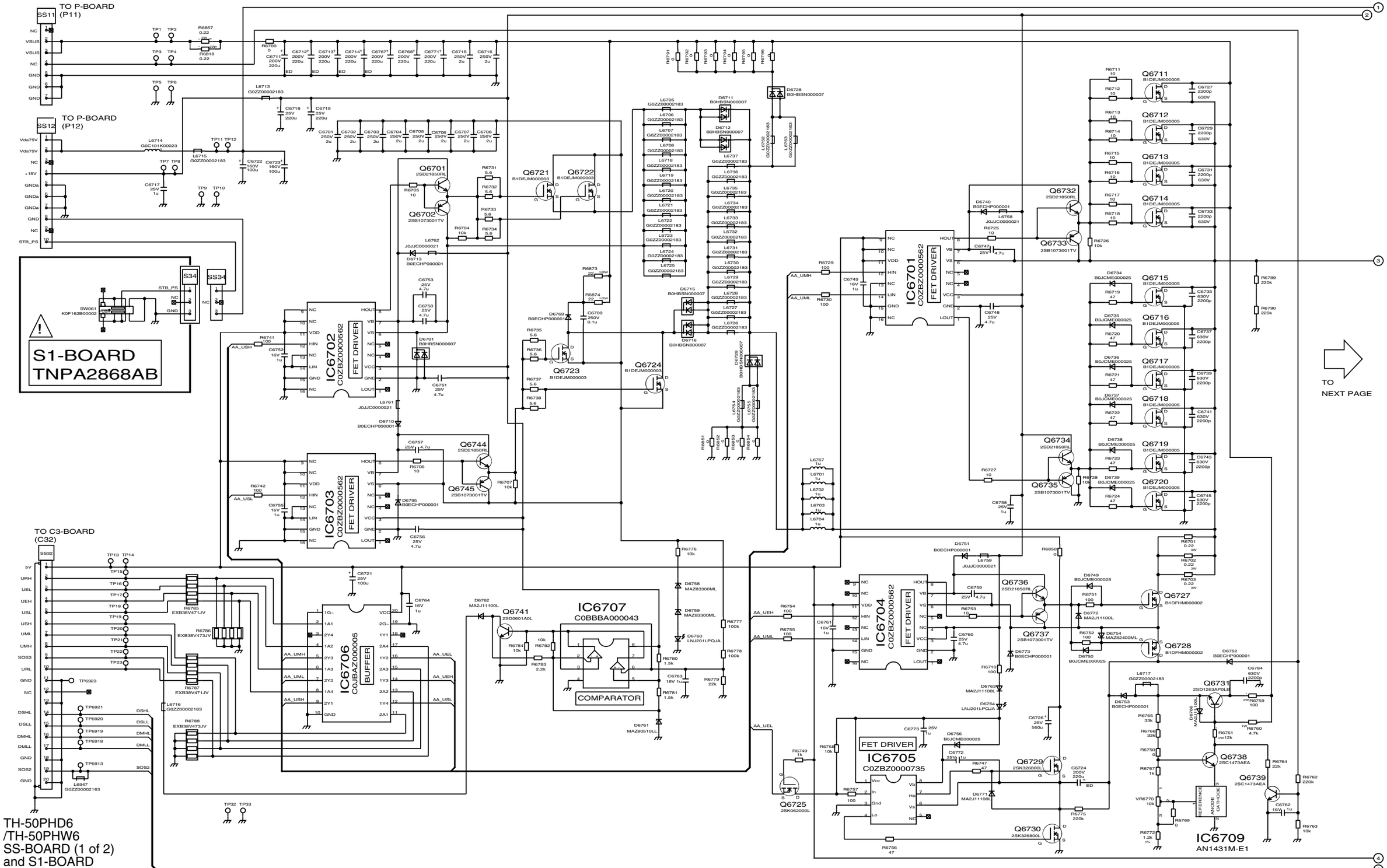
TO BACK PAGE

TH-50PHD6/TH-50PHW6
SD-BOARD (2 of 2) Schematic Diagram

TH-50PHD6/TH-50PHW6
SD-BOARD (2 of 2) Schematic Diagram

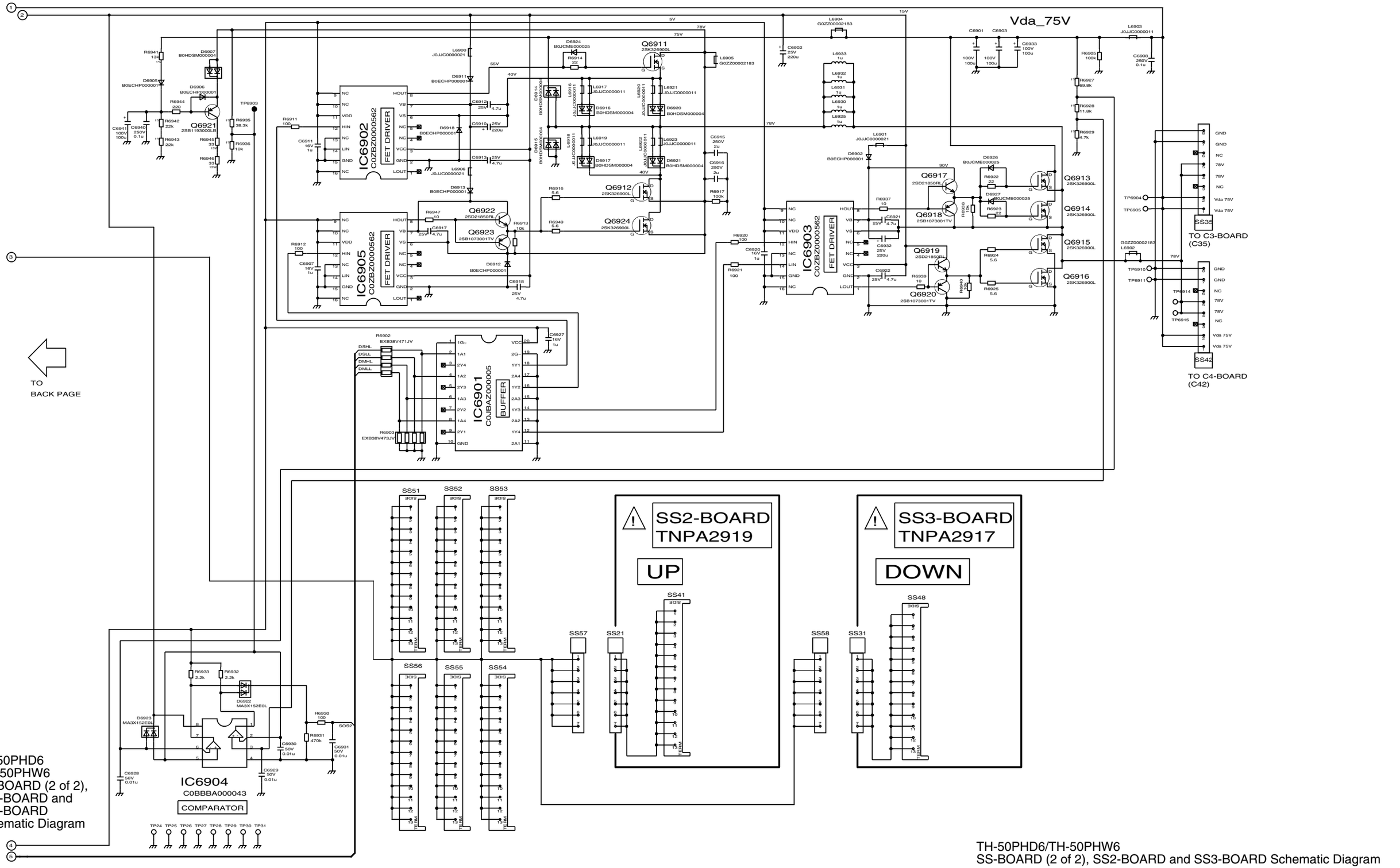
8 9 10 11 12 13 14 15

SS-BOARD TXNSS10QMS (1/2)



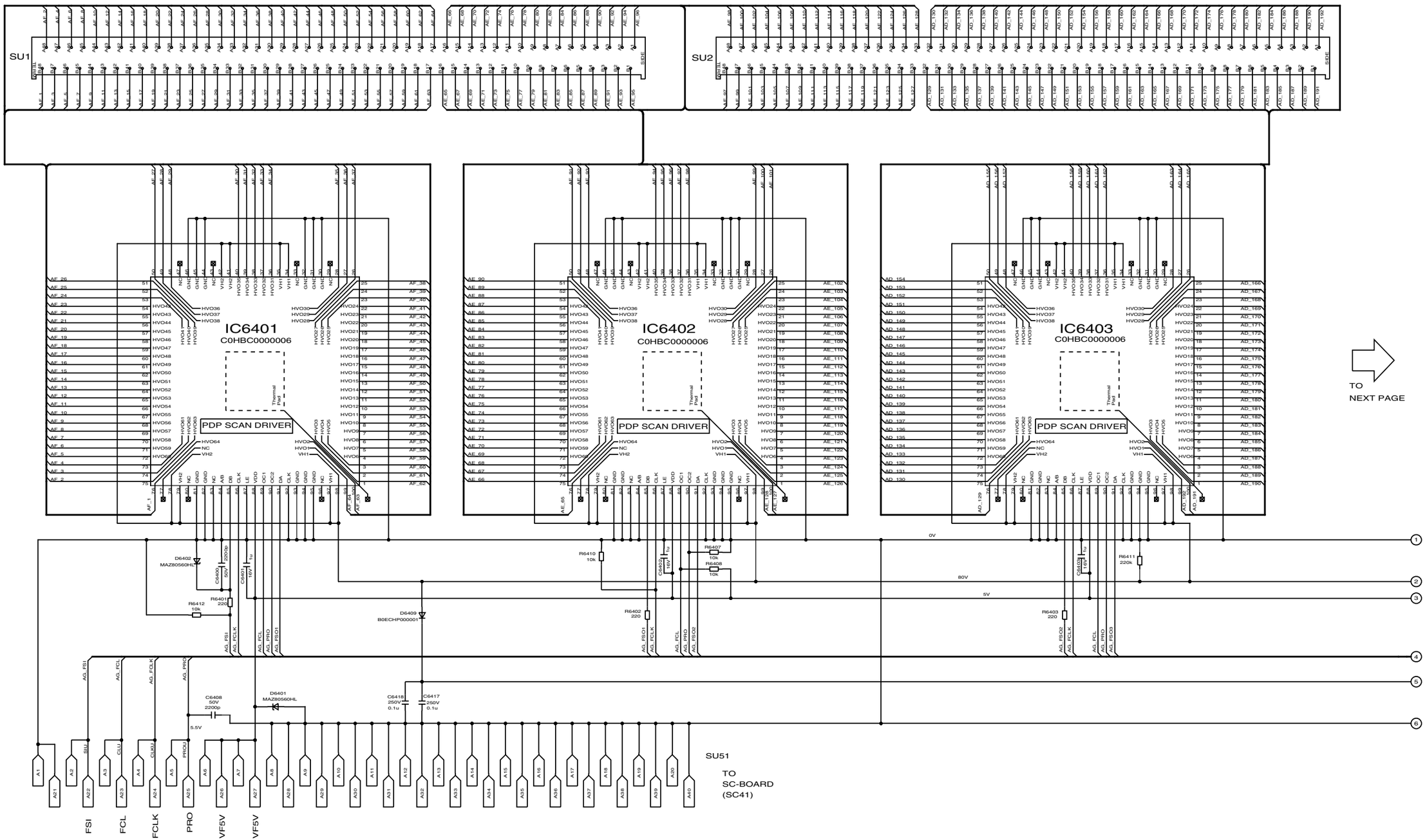
TH-50PHD6 /TH-50PHW6 SS-BOARD (1 of 2) and S1-BOARD Schematic Diagram

SS-BOARD TXNSS10QMS (2/2)



TH-50PHD6
/TH-50PHW6
SS-BOARD (2 of 2),
SS2-BOARD and
SS3-BOARD
Schematic Diagram

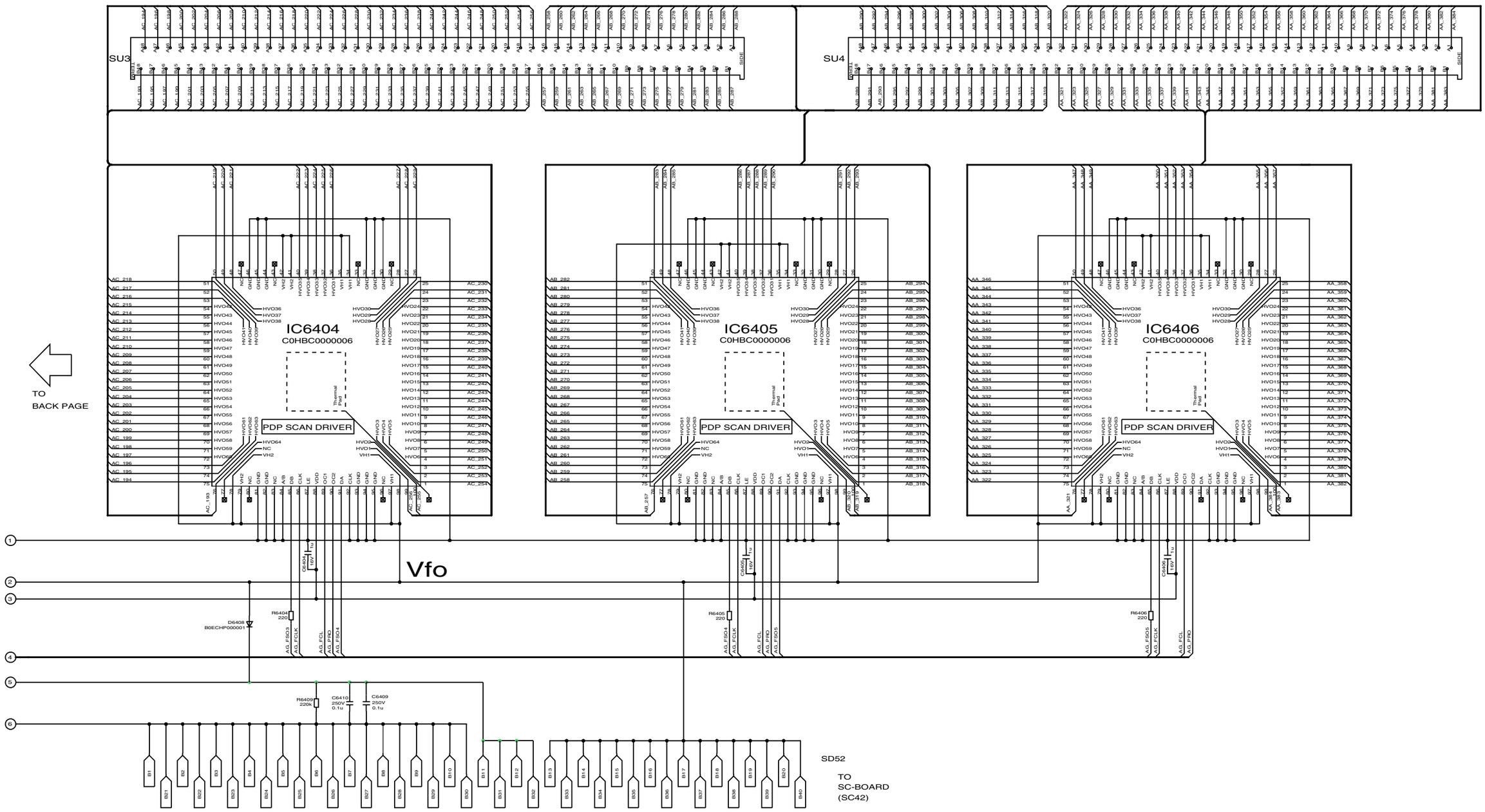
SU-BOARD TNPA2911 (1/2)



TH-50PHD6/TH-50PHW6
SU-BOARD (1 of 2) Schematic Diagram

TH-50PHD6/TH-50PHW6
SU-BOARD (1 of 2) Schematic Diagram

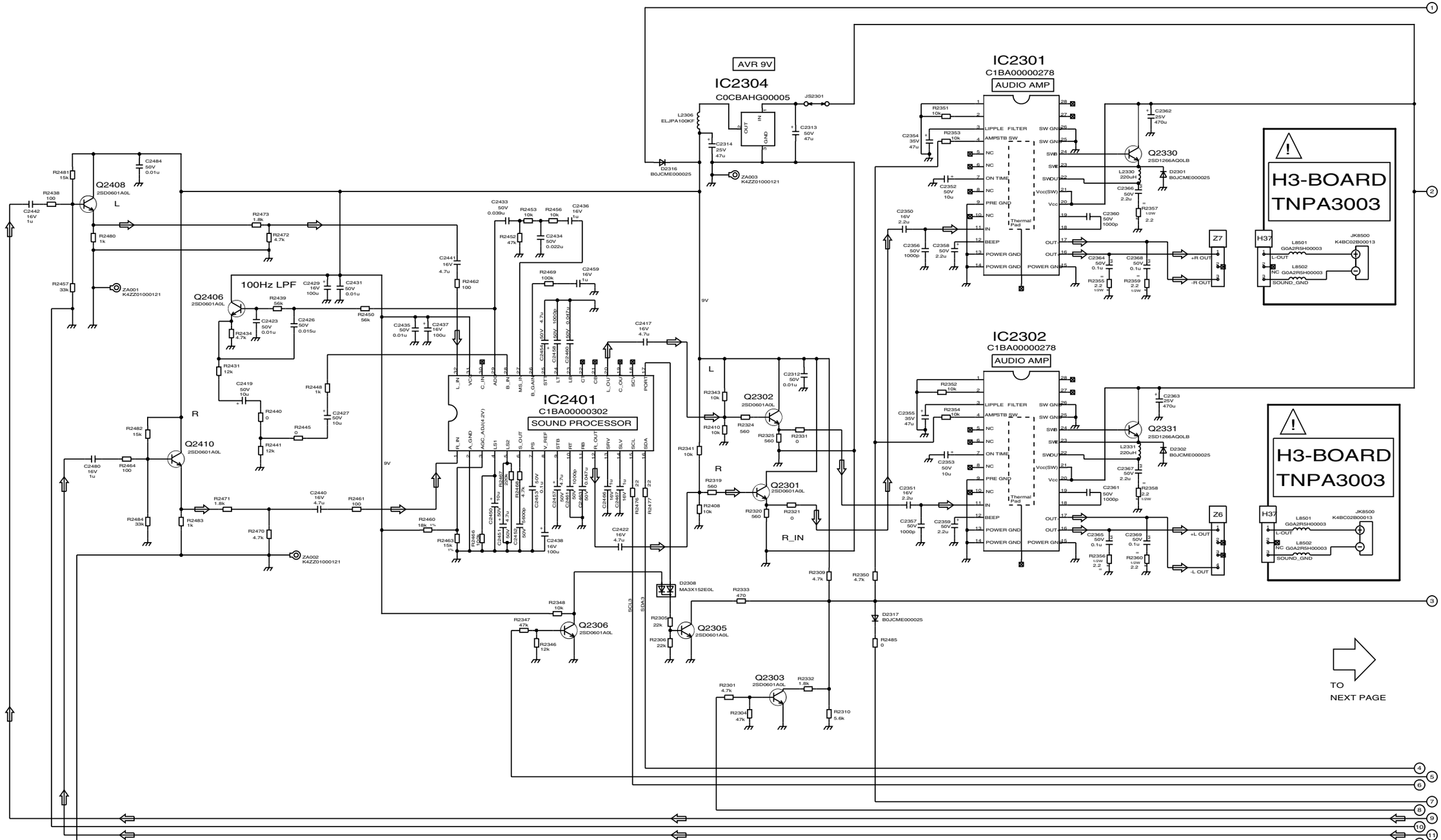
SU-BOARD TNPA2911 (2/2)



TH-50PHD6/TH-50PHW6
SU-BOARD (2 of 2) Schematic Diagram

TH-50PHD6/TH-50PHW6
SU-BOARD (2 of 2) Schematic Diagram

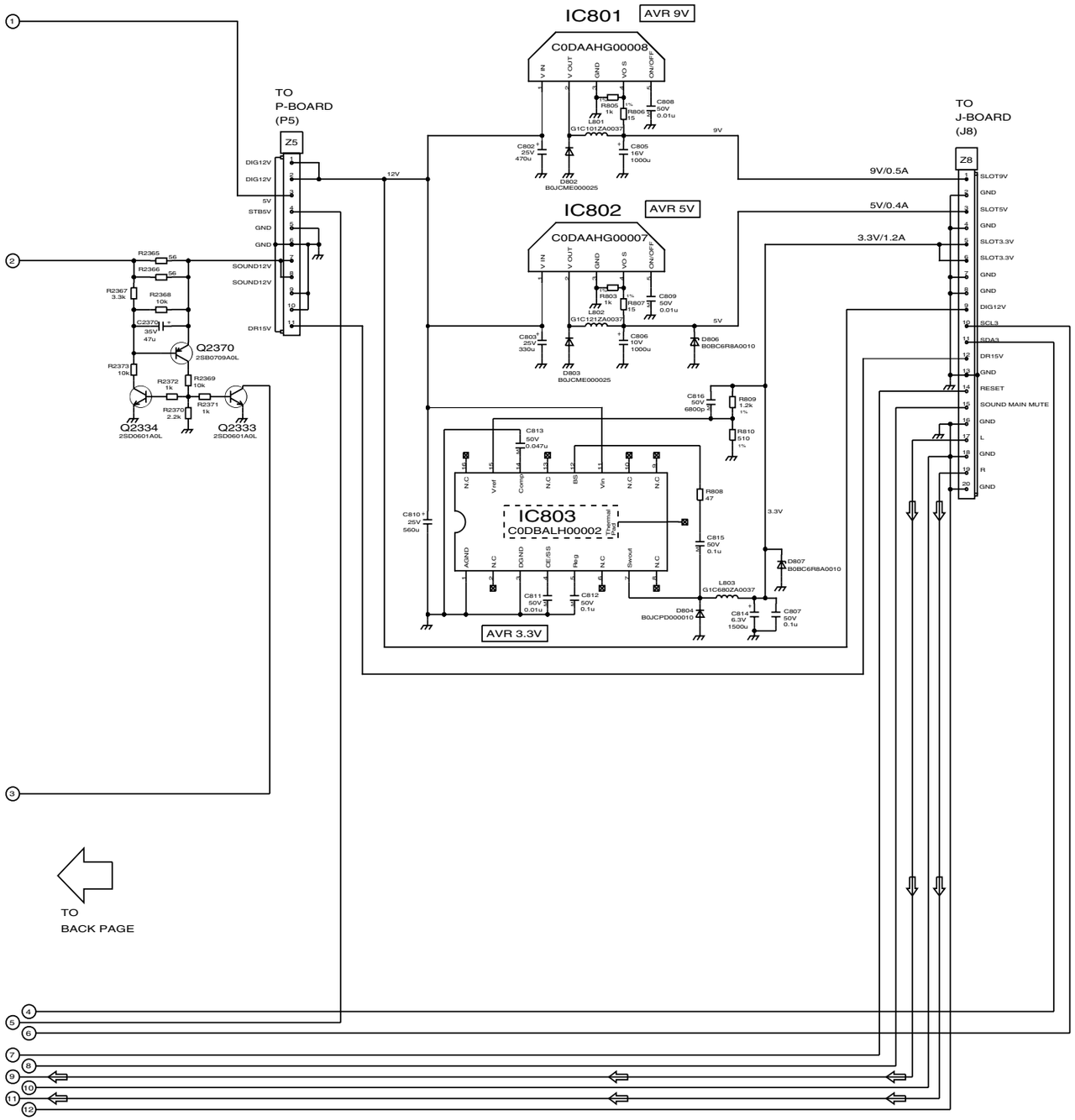
Z-BOARD TXN/Z10QBS (1/2)



TH-50PHD6/TH-50PHW6
Z-BOARD (1 of 2) and H3-BOARD Schematic Diagram

TH-50PHD6/TH-50PHW6
Z-BOARD (1 of 2) and H3-BOARD Schematic Diagram

Z-BOARD TXN/Z10QBS (2/2)



14 Schematic Diagrams

14.1. Schematic Diagram Notes

Important Safety Notice

Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

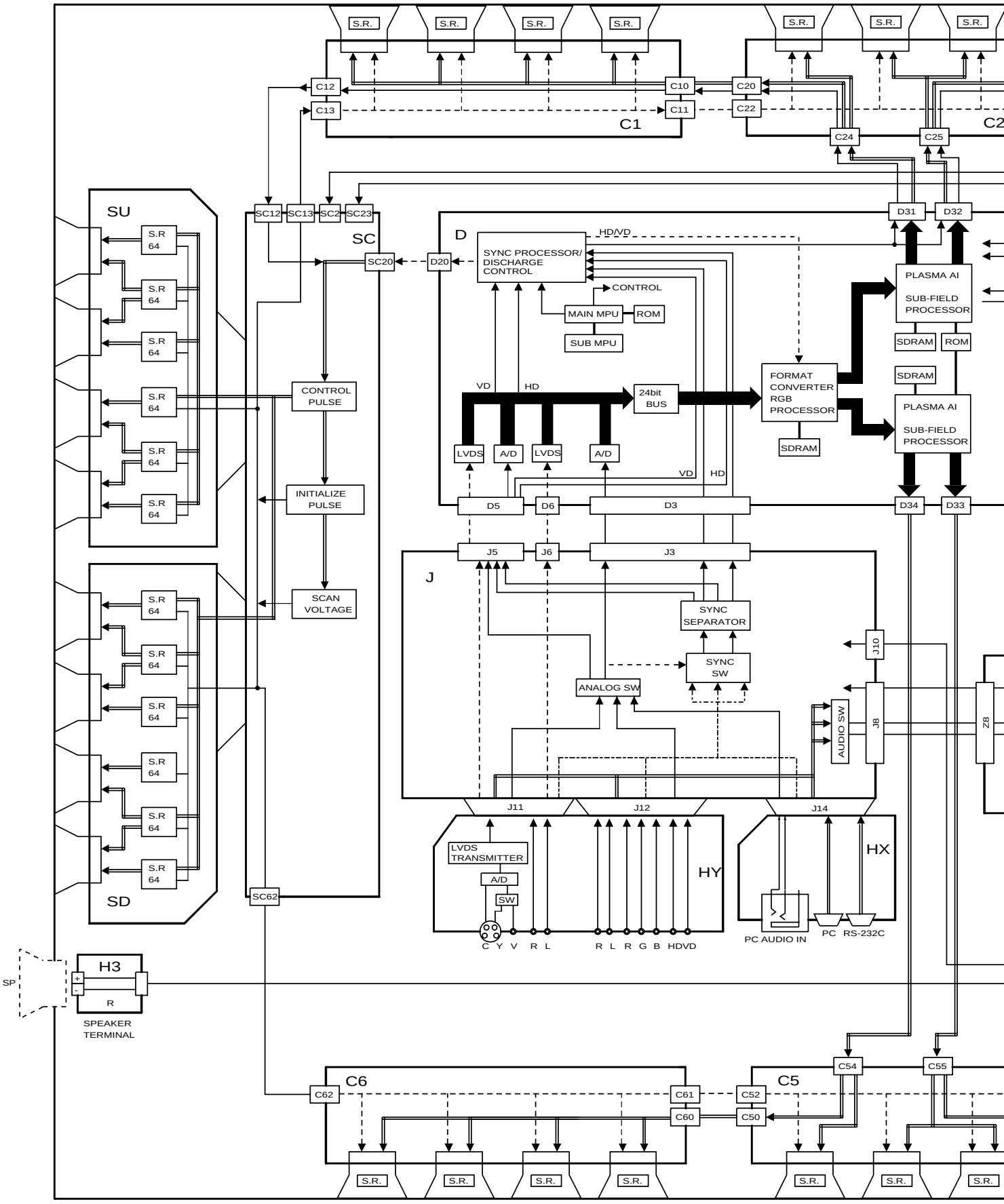
Notes:

1. **Resistor**
   All resistors are cabon 1/4W resistor, unless marked as follows:
   Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).
   - ◯ : Nonflammable
   - △ : Solid
   - ▨ : Wire Wound
   - ⊠ : Metal Oxide
   - ◎ : Metal Film
   - ⊗ : Fuse**:**
2. **Capacitor**
   All capacitors are ceramic 50V capacitor, unless marked as follows:
   Unit of capacitance is μF, unless otherwise noted.
   - ⊗ : Temperature Compensation
   - Ⓜ : Polyester
   - ⓜ : Metalized Polyester
   - ⊠ : Polypropylene
   -  : Electrolytic
   -  : Bipolar
   - Ⓣ : Dipped Tantalum
   - Ⓩ : Z-Type
3. Coil
   Unit of inductance is μF, unless otherwise noted.
4. Test Point
   - ⚲ : Test Point position
5. Earth Symbol
   - ⏚ : Chassis Earth (Cold)
   - ⏚ : Line Earth (Hot)
6. Voltage Measurement
   Voltage is measured by a DC voltmeter.
   Conditions of the measurement are the following:
   Power Source AC220-240V, 50/60Hz
   Receiving Signal ..... Colour Bar signal (RF)
   All customer's controls ..... Maximum positions
7. Number in red circle indicates waveform nember.
   (See waveform pattern table.)
8. When arrow mark (↗) is found, connection is easily found from the direction of arrow
9. Indicates the major signal flow. : Video ➡ Audio ⇨
10. This schematic diagram is the latest at the time of printing and subject to change without notice.

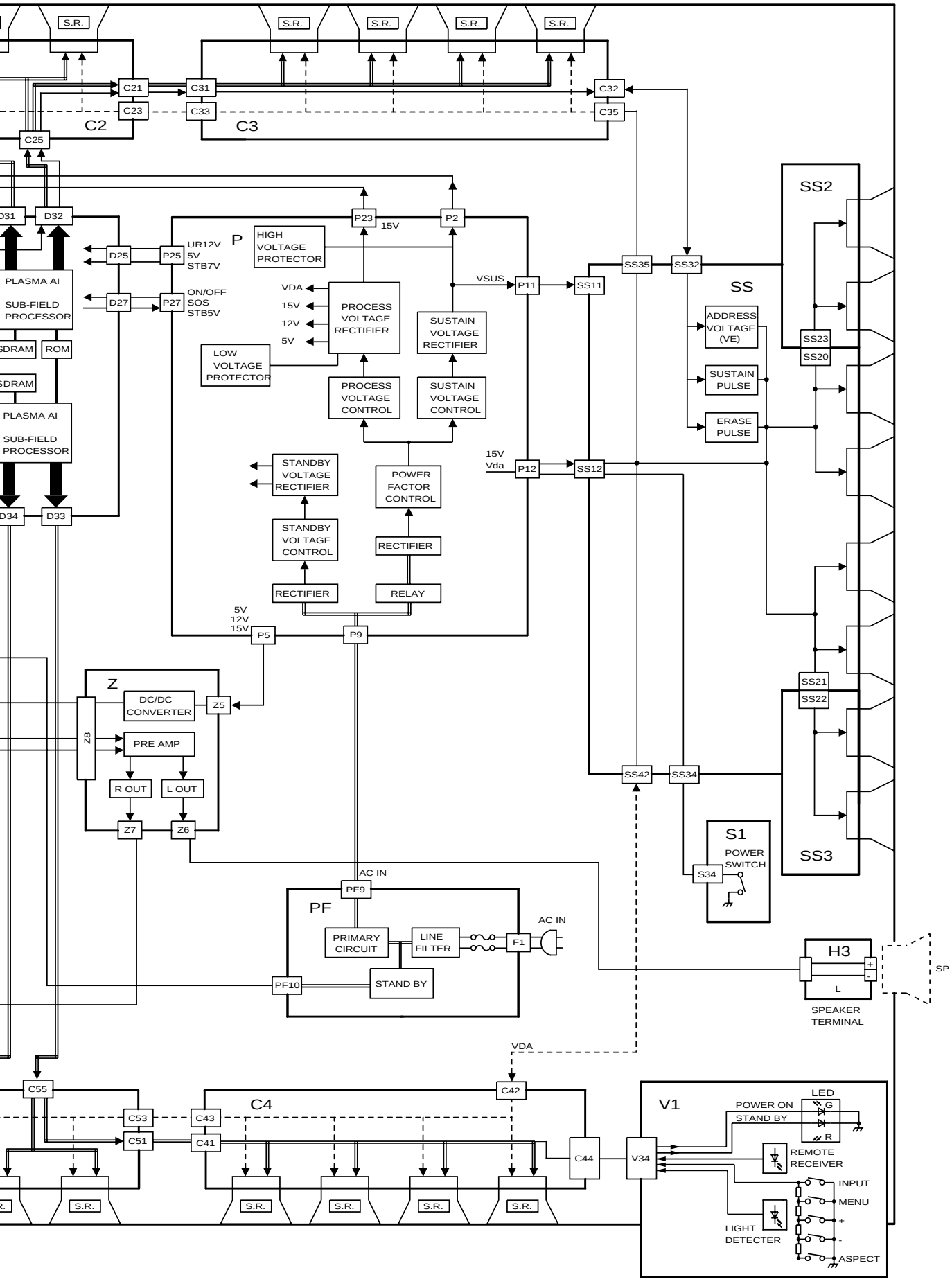
Remarks:

1. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection.
   The circuit is defined by HOT and COLD indications in the schematic diagram. Take the follwing precautions.
   All circuits, except the Power Circuit, are cold.
   Precautions
   a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
   b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
   c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
      Connect the earth of instruments to the earth connection of the circuit being measured.
   d. Make sure to disconnect the power plug before removing the chassis.
2. Following diodes are interchangeable.
   MA150- MA162 (Replacement part)

14.2. Main Block Diagram

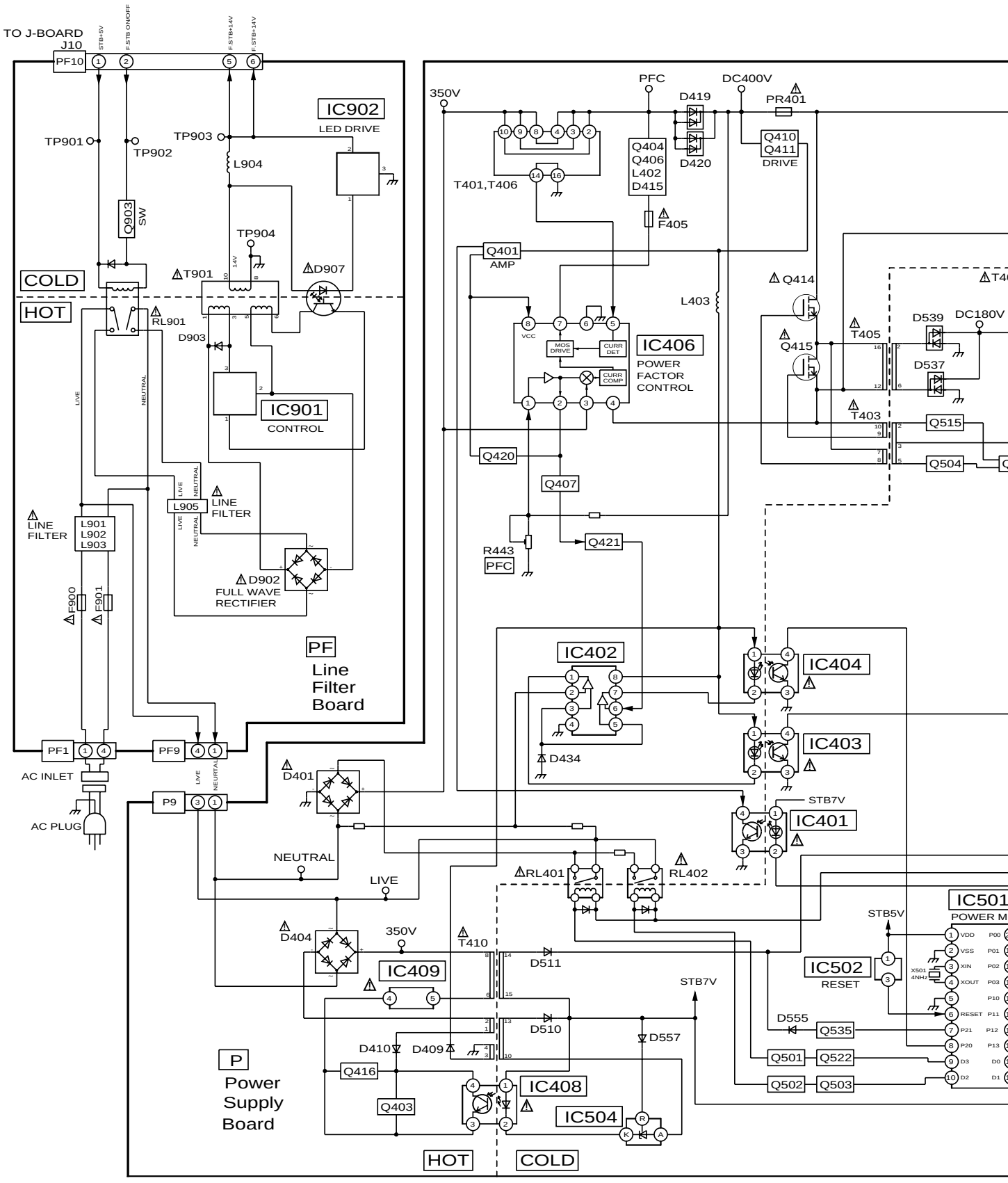


TH-50PHD6/TH-50PHW6 MAIN Block Diagram

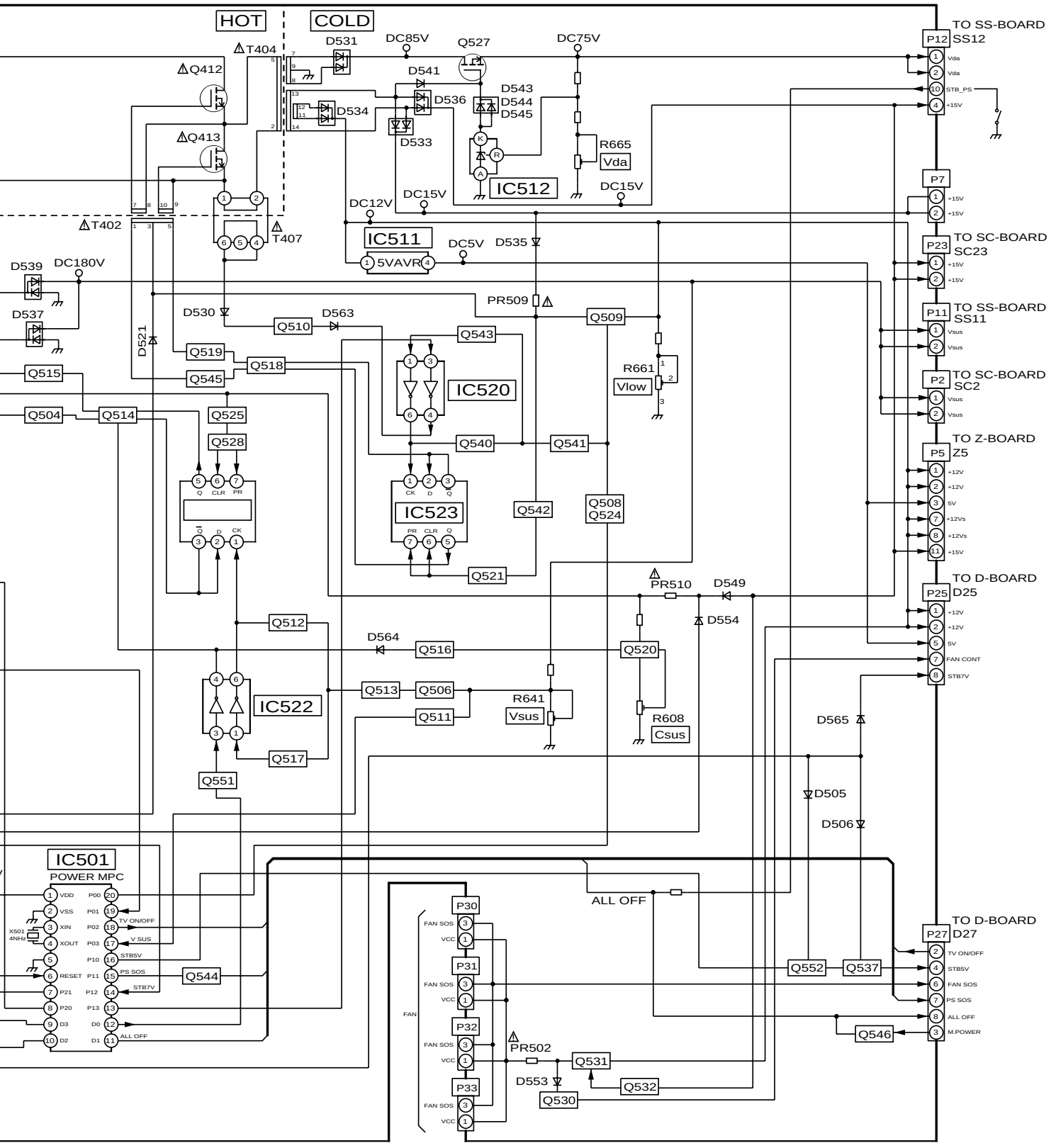


TH-50PHD6/TH-50PHW6 MAIN Block Diagram

14.3. P and PF-Board Block Diagram



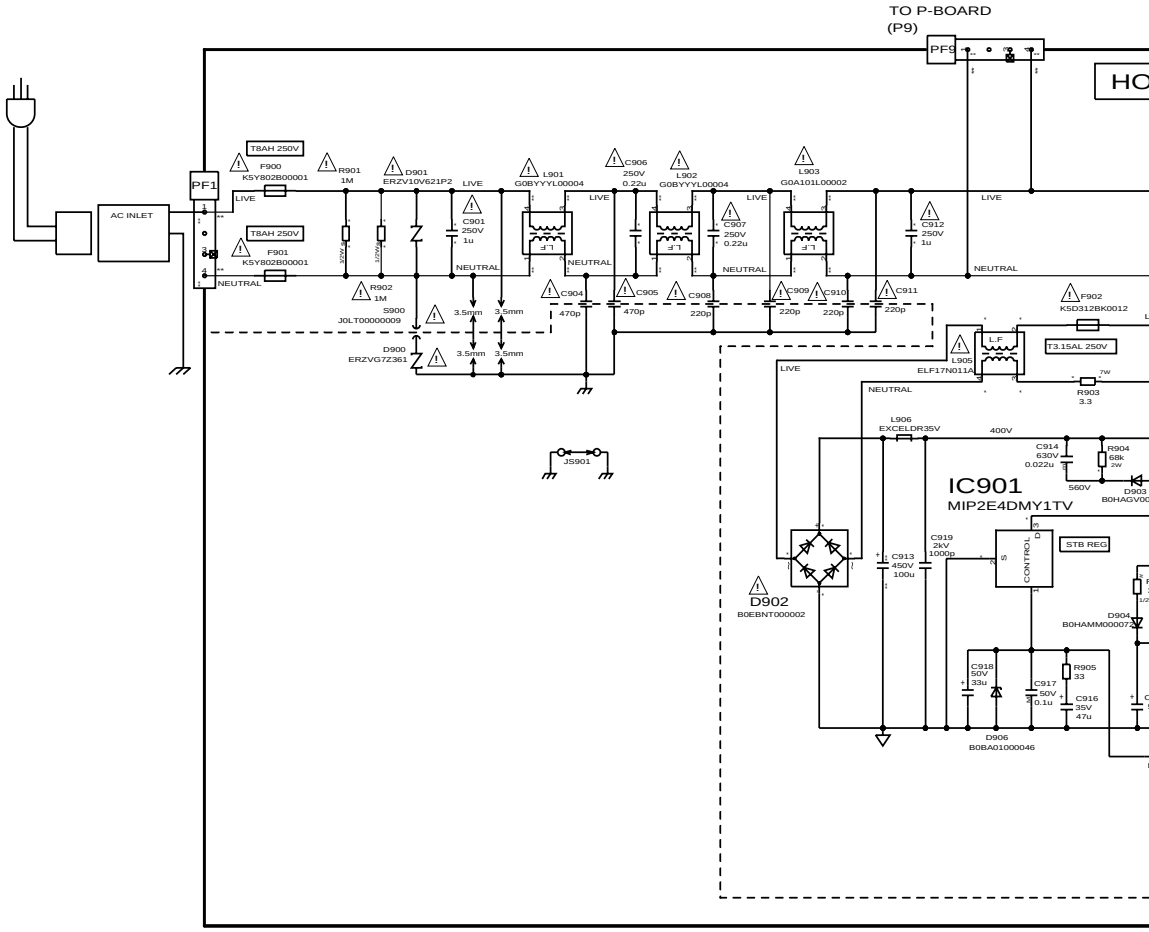
TH-50PHD6/TH-50PHW6
POWER BOARD Block Diagram



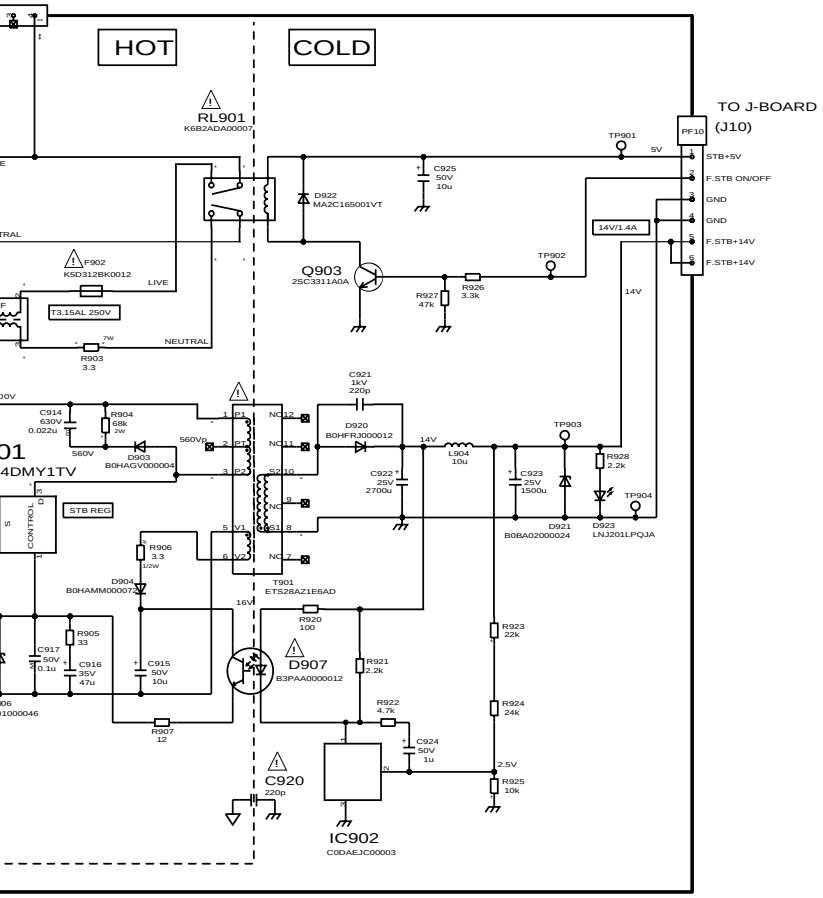
TH-50PHD6/TH-50PHW6
POWER BOARD Block Diagram

14.4. PF-Board Schematic Diagram

⚠ PF-BOARD TXNPF10QMS



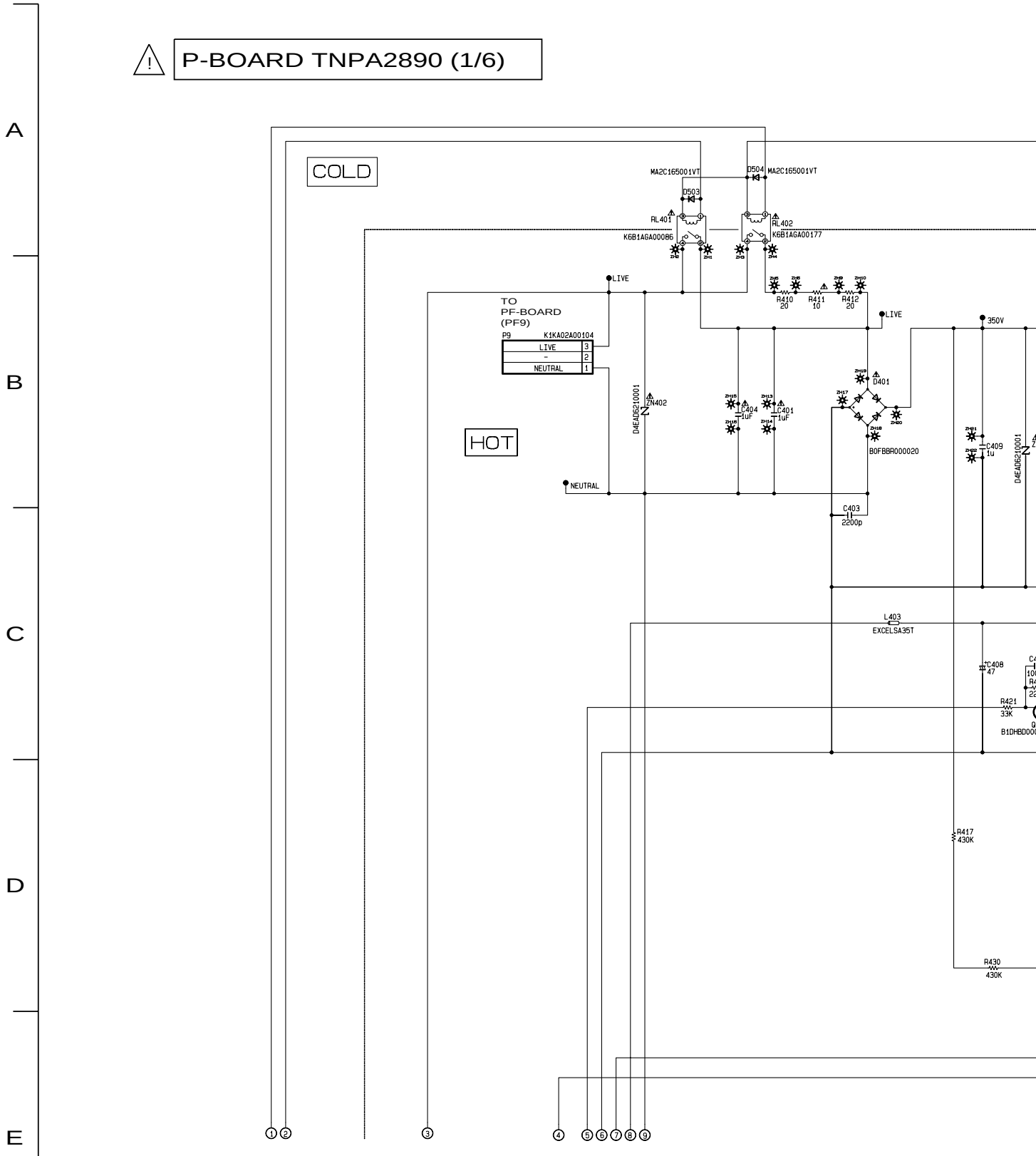
TH-50PHD6/TH-50PHW6
PF-BOARD Schematic Diagram



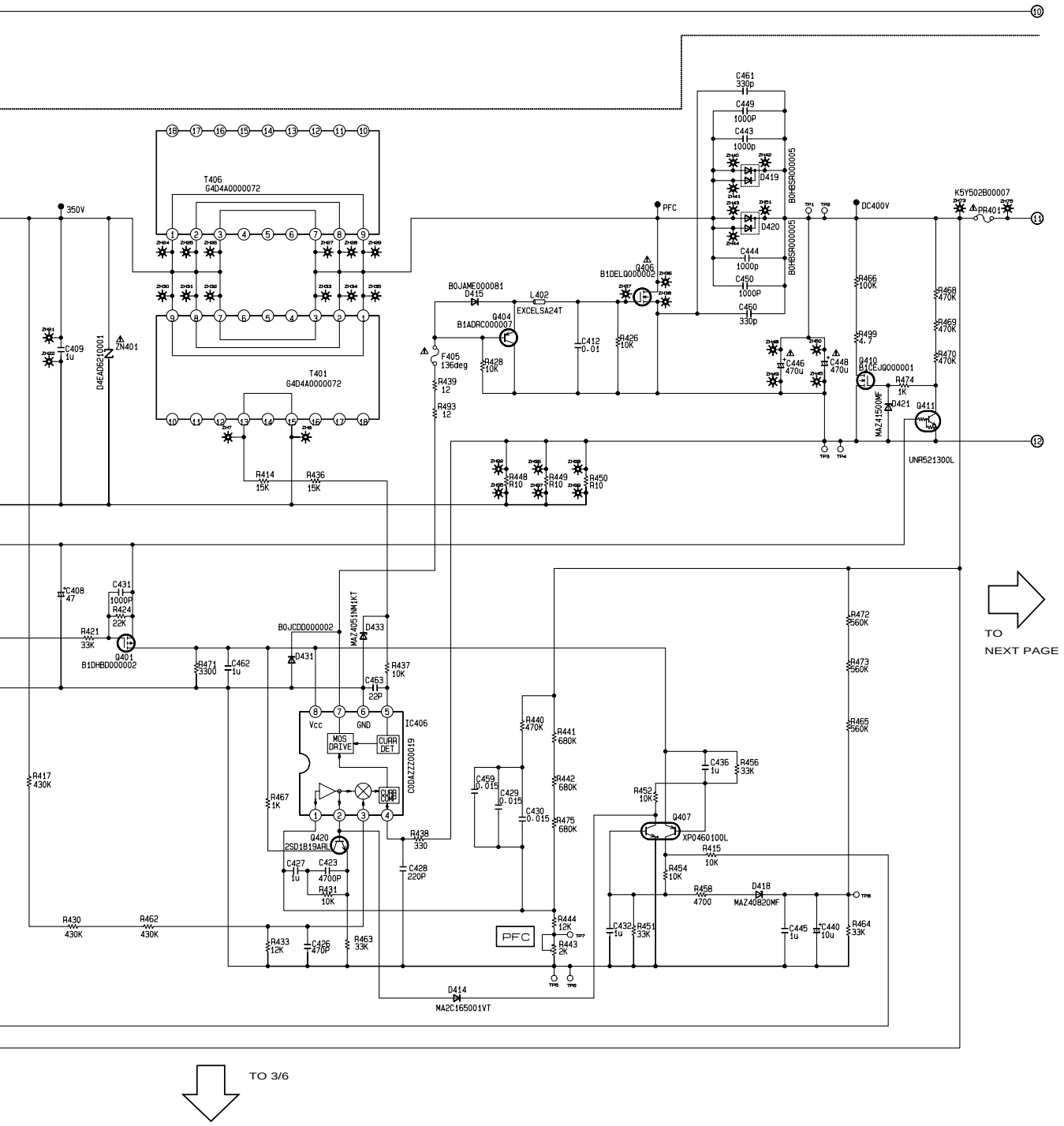
TH-50PHD6/TH-50PHW6
PF-BOARD Schematic Diagram

5 6 7 8

14.5. P-Board (1 of 6) Schematic Diagram



TH-50PHD6/TH-50PHW6
P-BOARD (1 of 6) Schematic Diagram

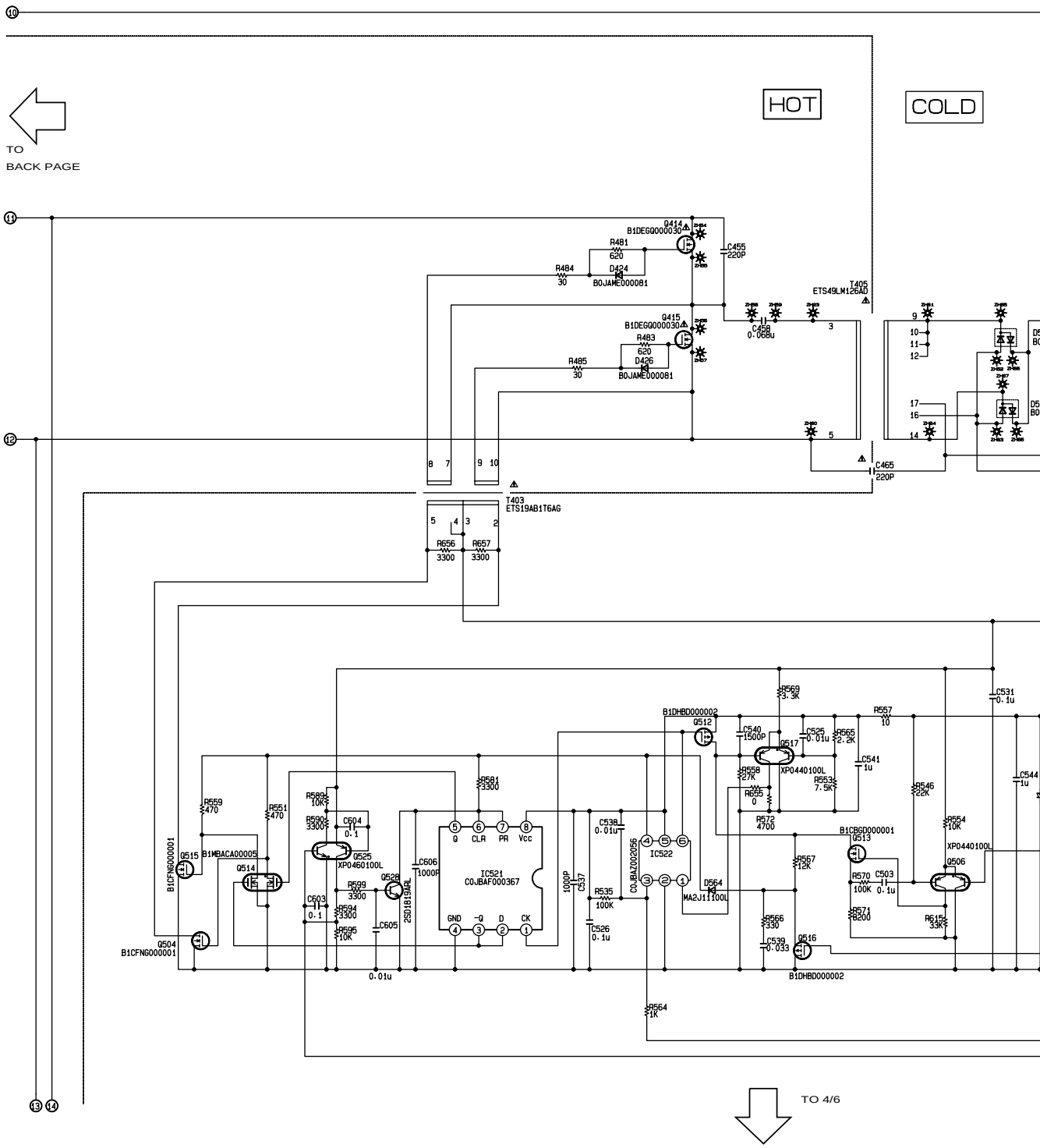


TH-50PHD6/TH-50PHW6
P-BOARD (1 of 6) Schematic Diagram

5 6 7 8

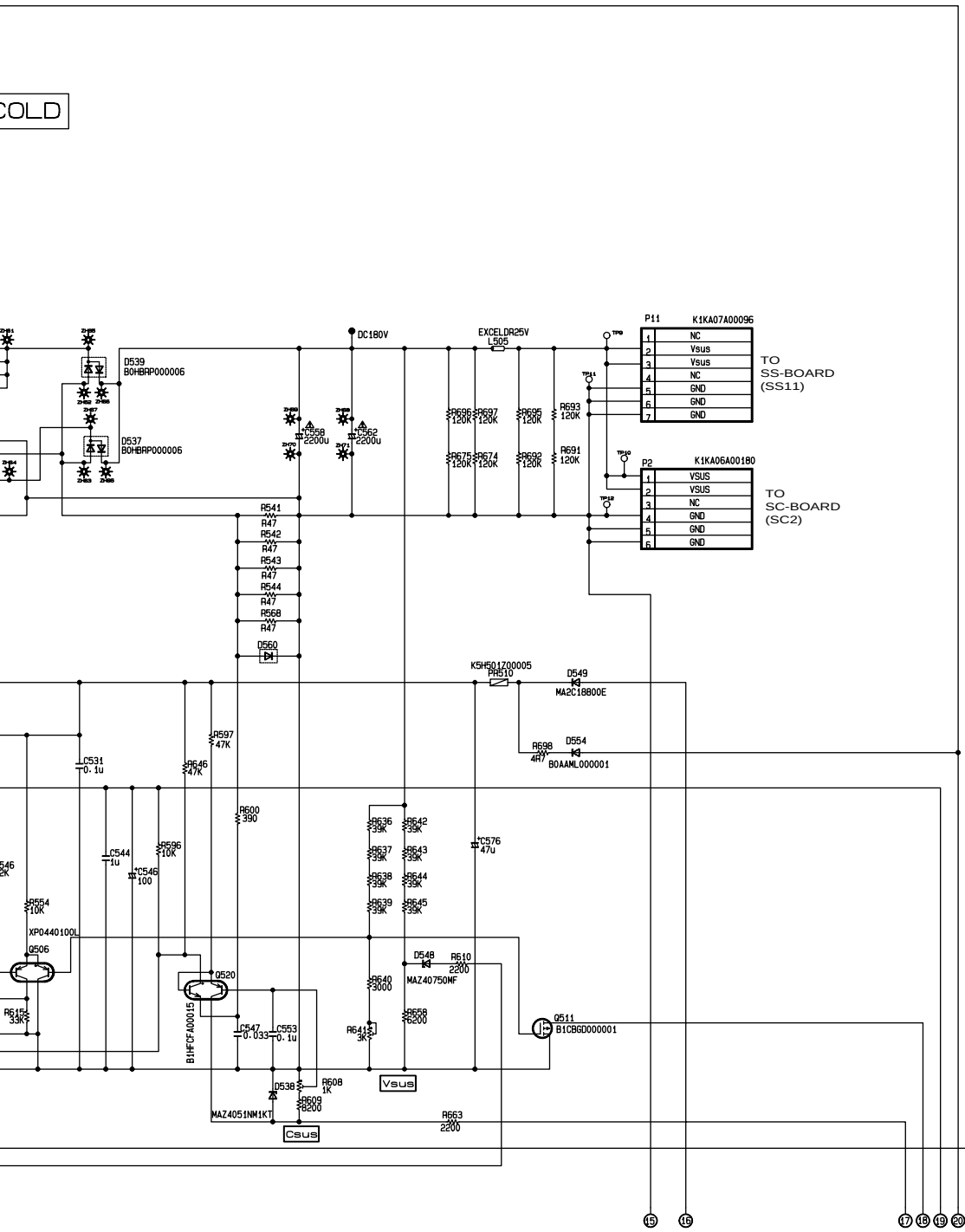
14.6. P-Board (2 of 6) Schematic Diagram

⚠ P-BOARD TNPA2890 (2/6)



TH-50PHD6/TH-50PHW6
P-BOARD (2 of 6) Schematic Diagram

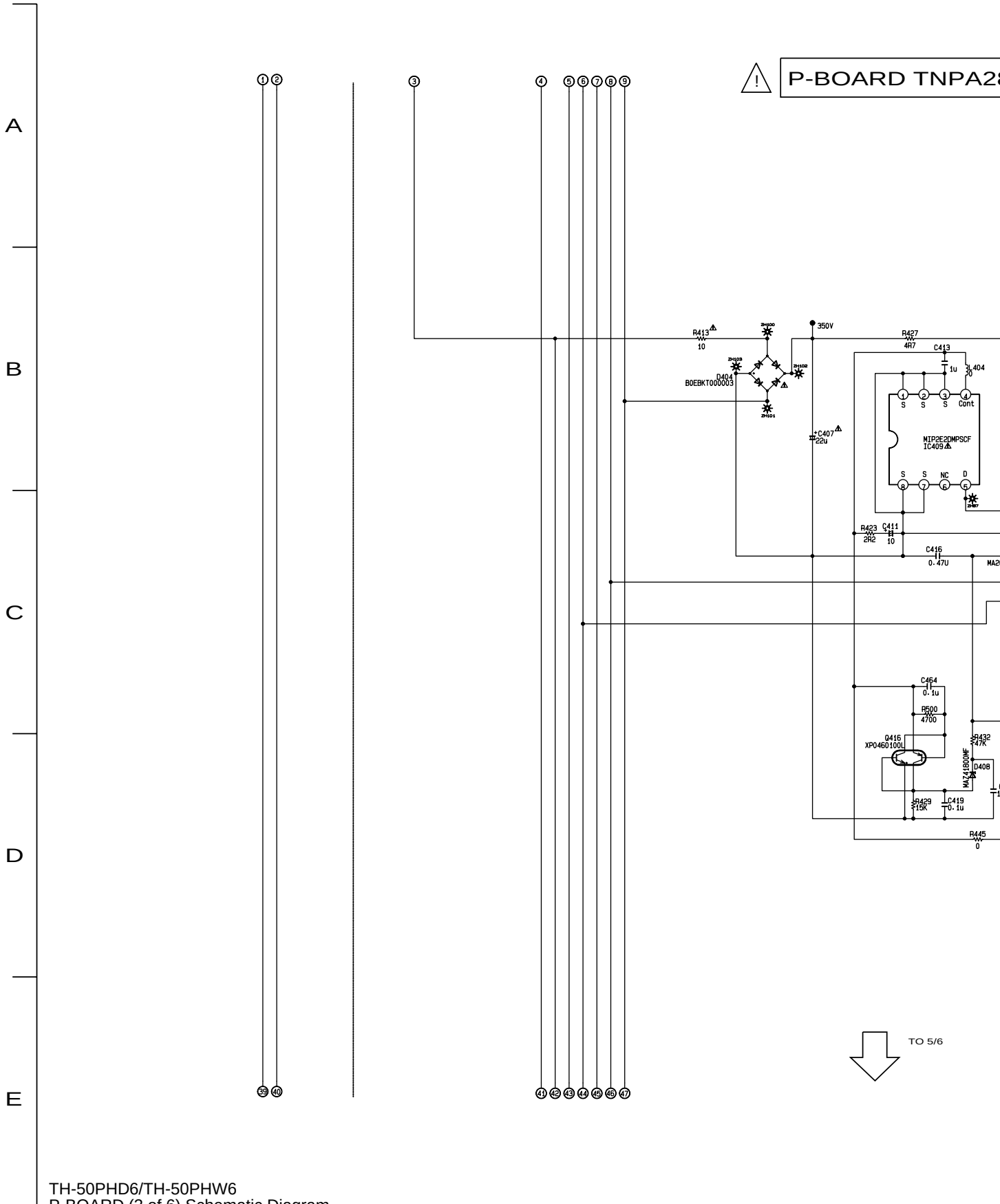
8 | 9 | 10 | 11 | 12



TH-50PHD6/TH-50PHW6
P-BOARD (2 of 6) Schematic Diagram

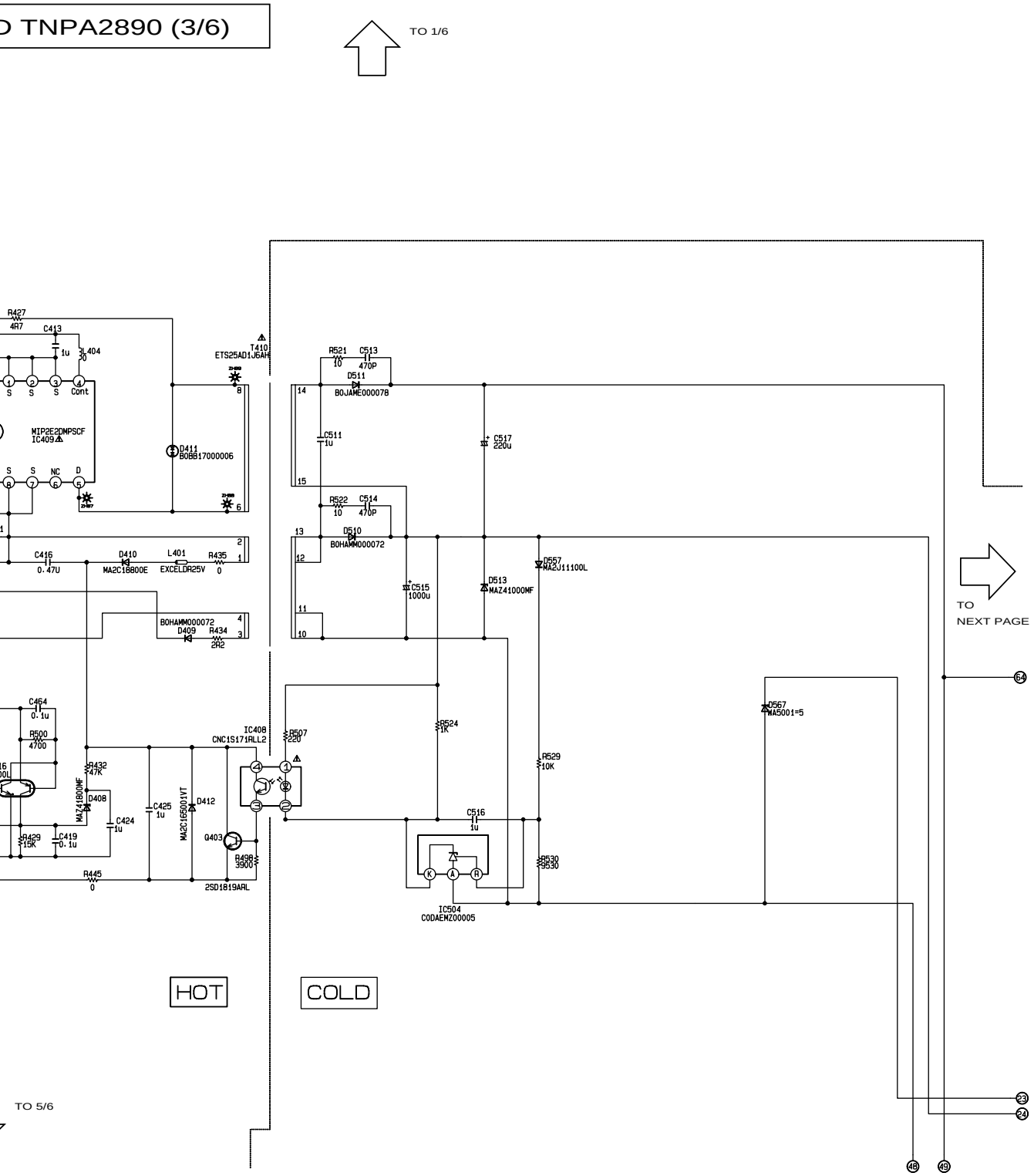
12 13 14 15

14.7. P-Board (3 of 6) Schematic Diagram



TH-50PHD6/TH-50PHW6
P-BOARD (3 of 6) Schematic Diagram

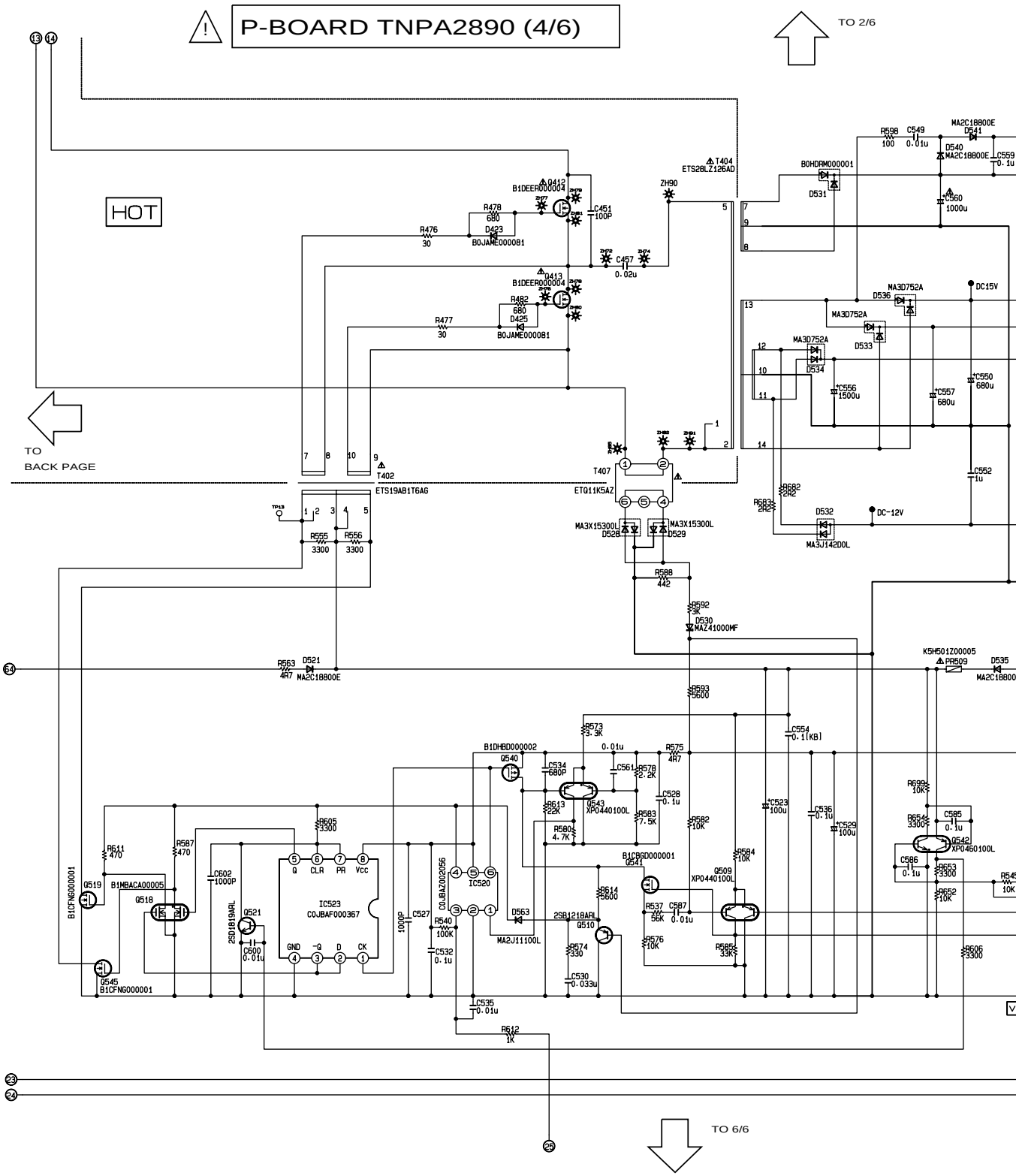
D TNPA2890 (3/6)



TH-50PHD6/TH-50PHW6
P-BOARD (3 of 6) Schematic Diagram

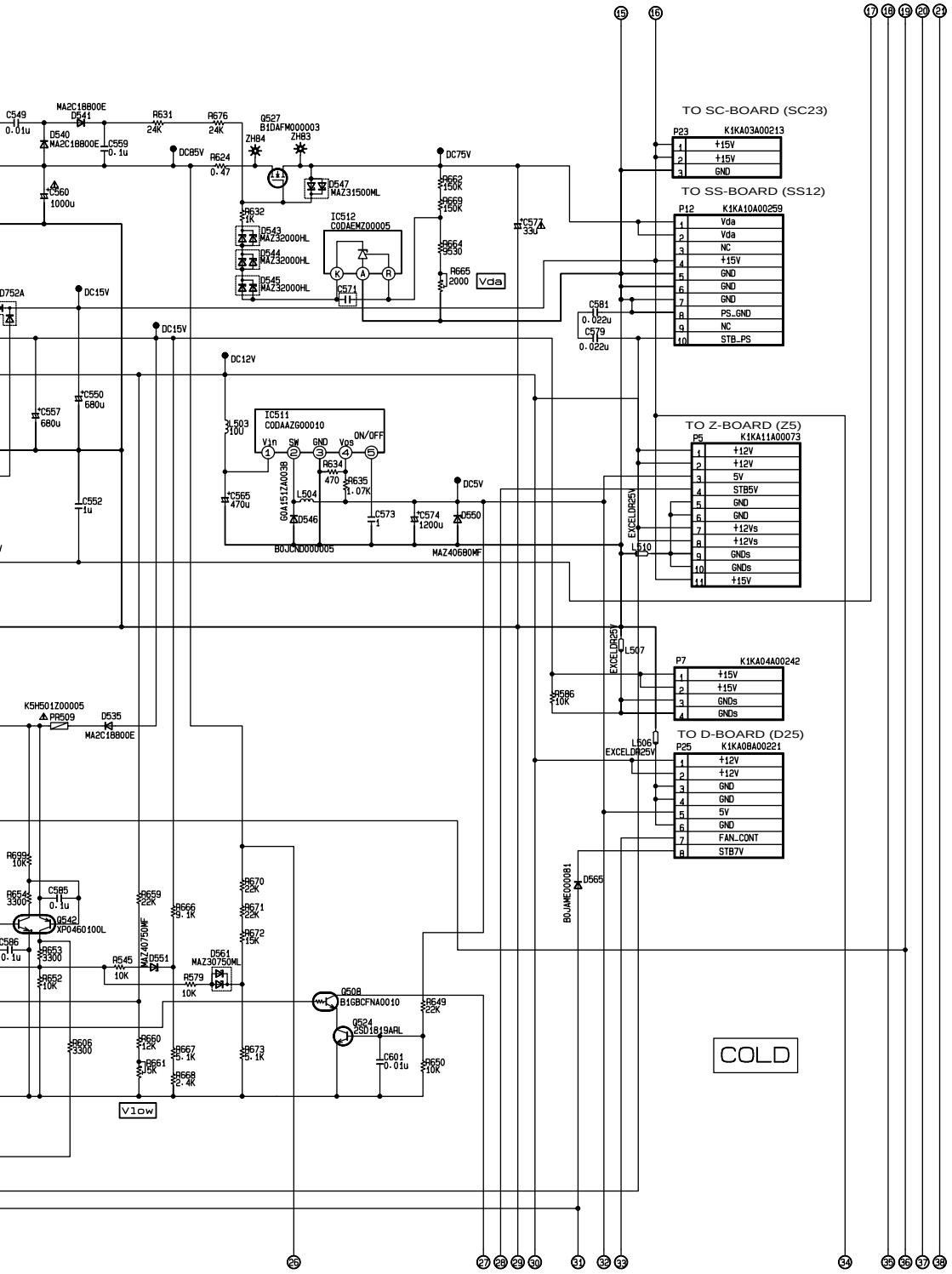
5 6 7 8

14.8. P-Board (4 of 6) Schematic Diagram



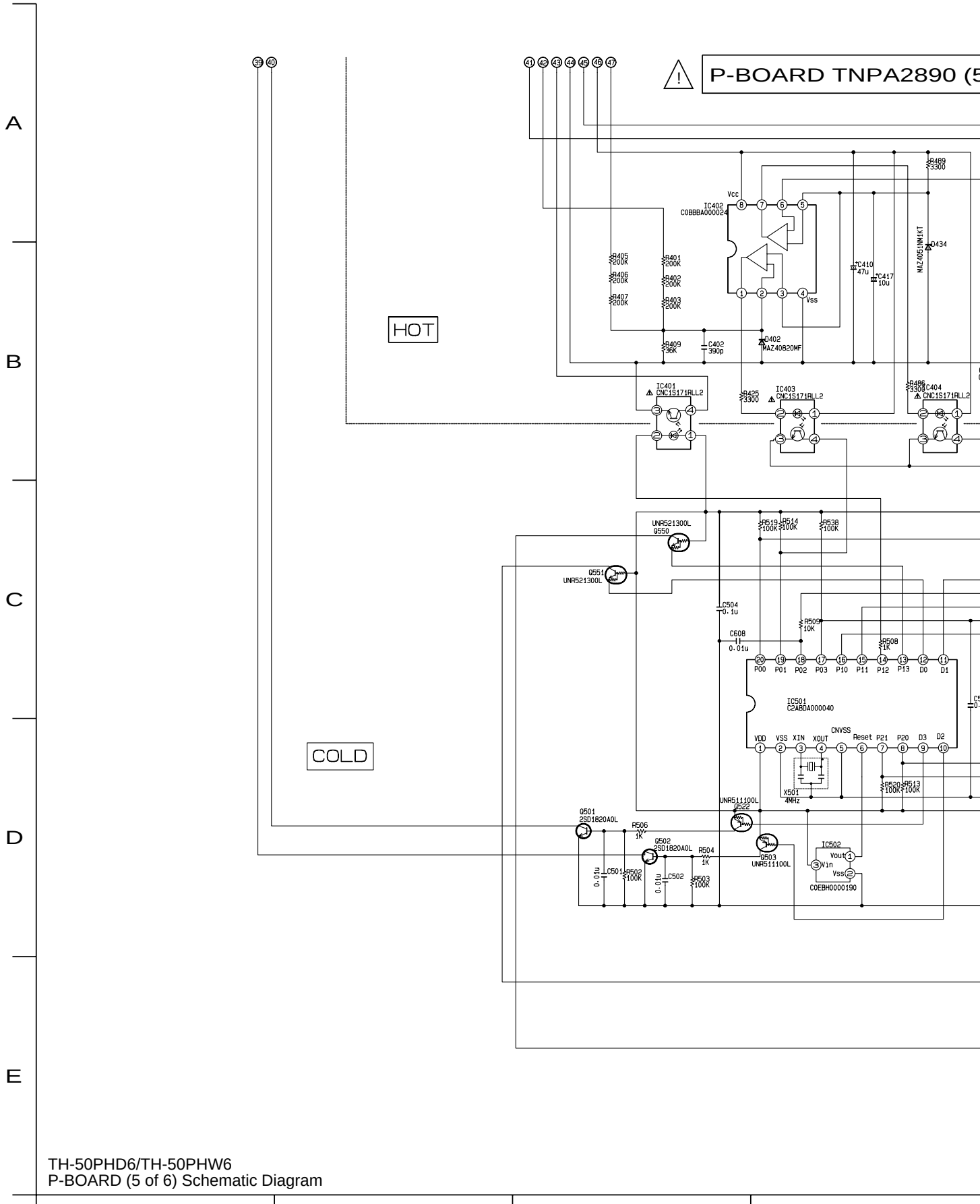
TH-50PHD6/TH-50PHW6
P-BOARD (4 of 6) Schematic Diagram

8 | 9 | 10 | 11 | 12

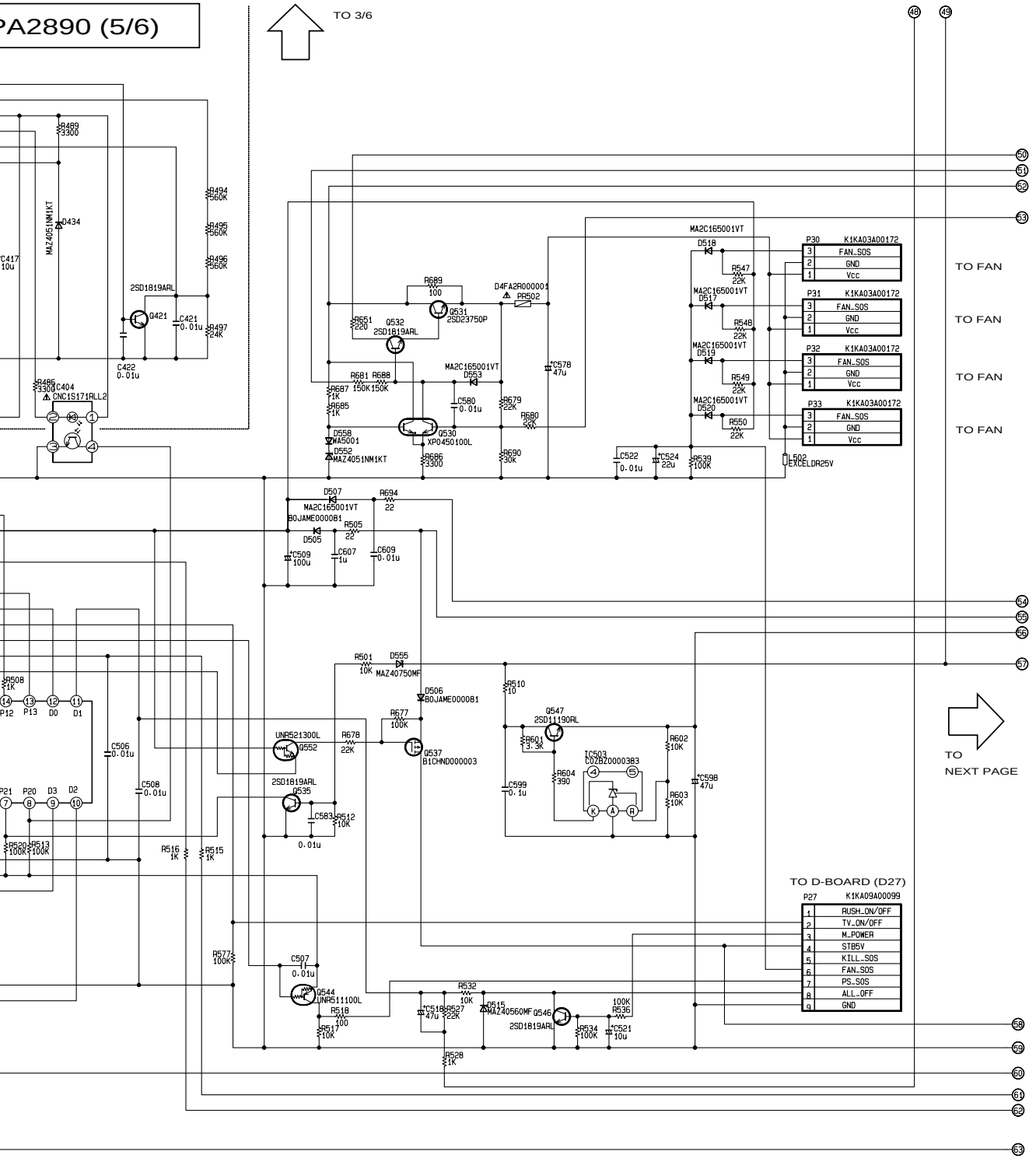


TH-50PHD6/TH-50PHW6
P-BOARD (4 of 6) Schematic Diagram

14.9. P-Board (5 of 6) Schematic Diagram



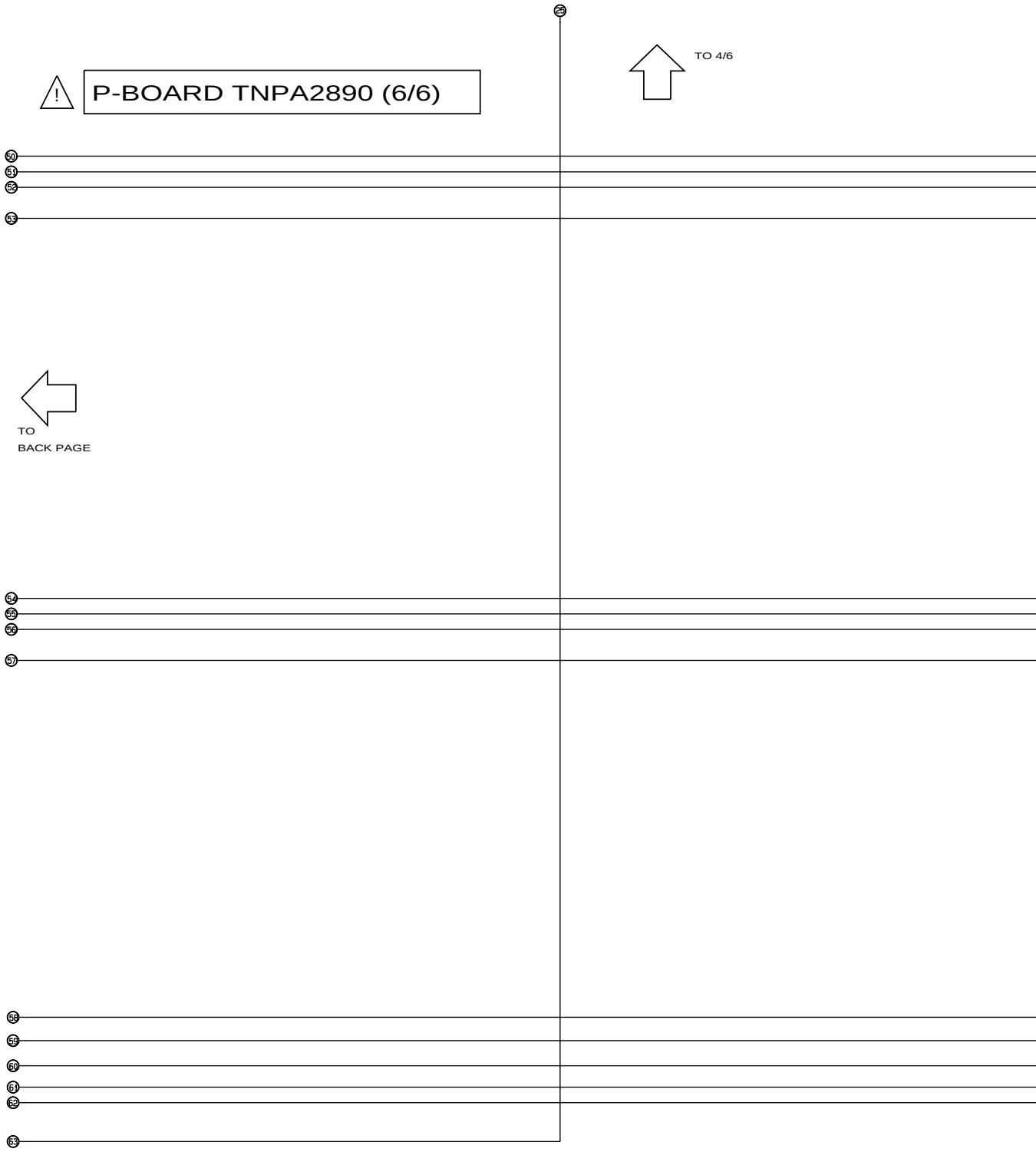
TH-50PHD6/TH-50PHW6
P-BOARD (5 of 6) Schematic Diagram



TH-50PHD6/TH-50PHW6
P-BOARD (5 of 6) Schematic Diagram

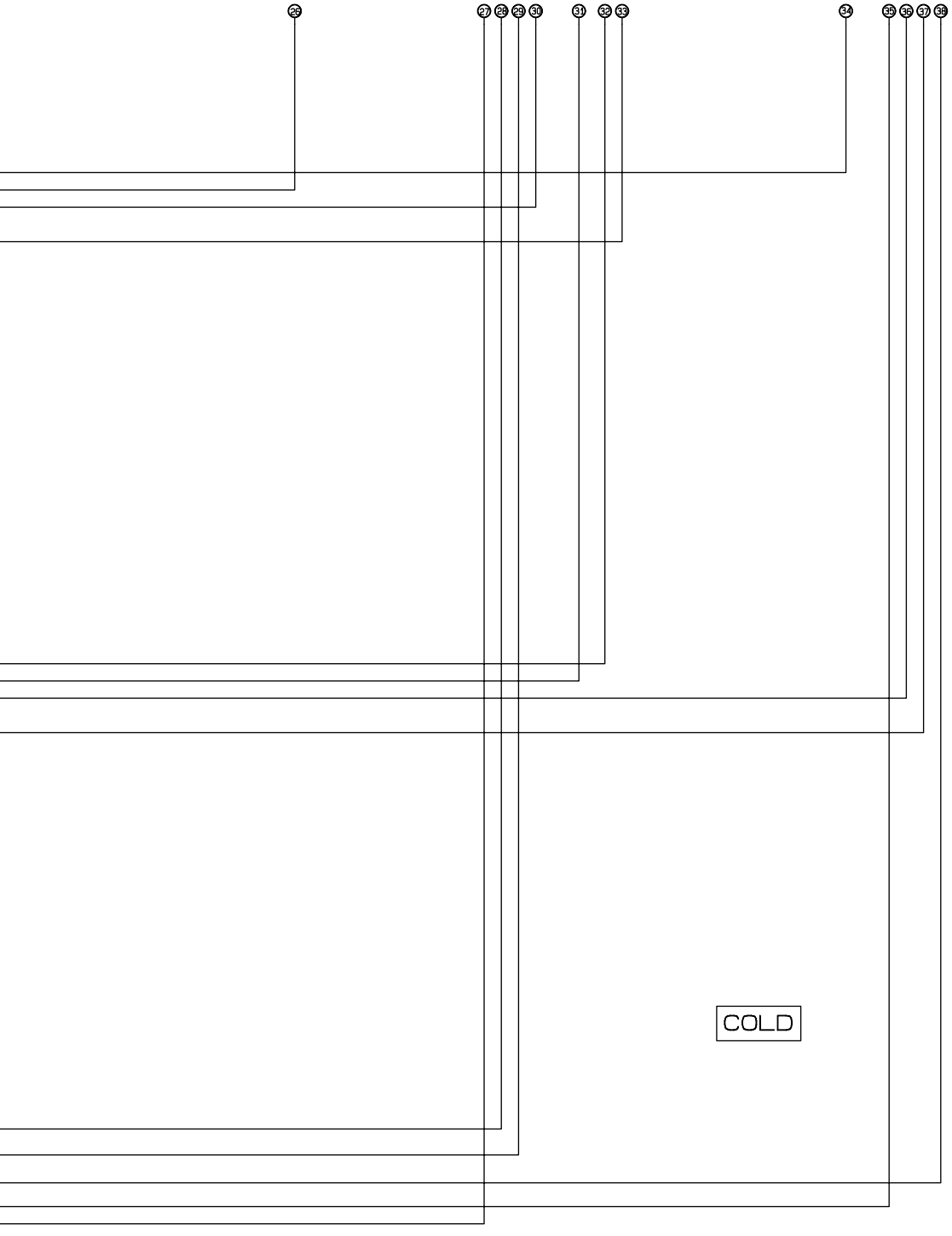
5 6 7 8

14.10. P-Board (6 of 6) Schematic Diagram



TH-50PHD6/TH-50PHW6
P-BOARD (6 of 6) Schematic Diagram

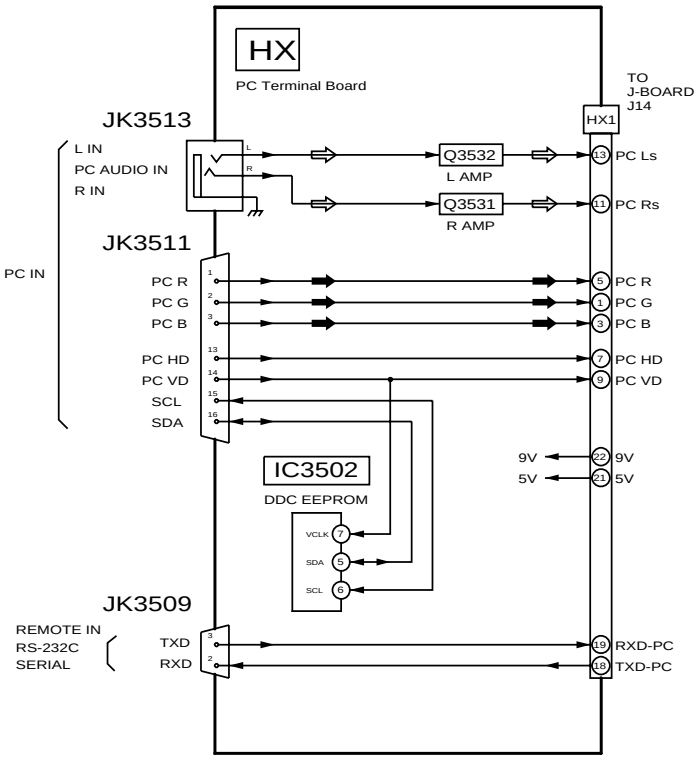
8 9 10 11 12



TH-50PHD6/TH-50PHW6
P-BOARD (6 of 6) Schematic Diagram

12 13 14 15

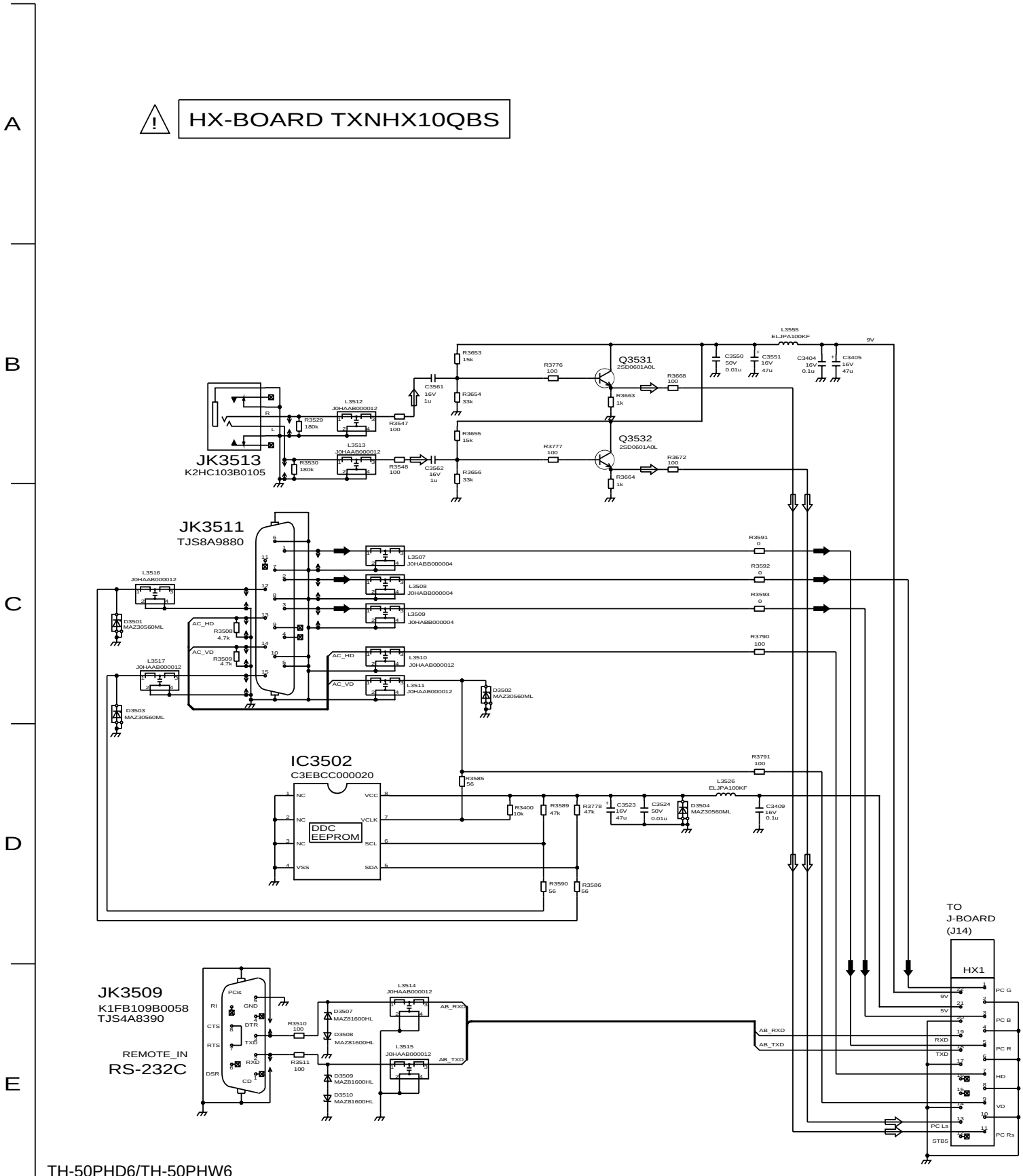
14.11. HX-Board Block Diagram



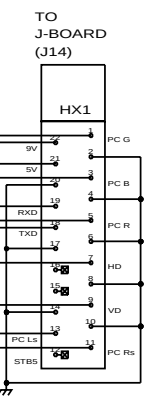
TH-50PHD6/TH-50PHW6
HX-BOARD Block Diagram

TH-50PHD6/TH-50PHW6
HX-BOARD Block Diagram

14.12. HX-Board Schematic Diagram



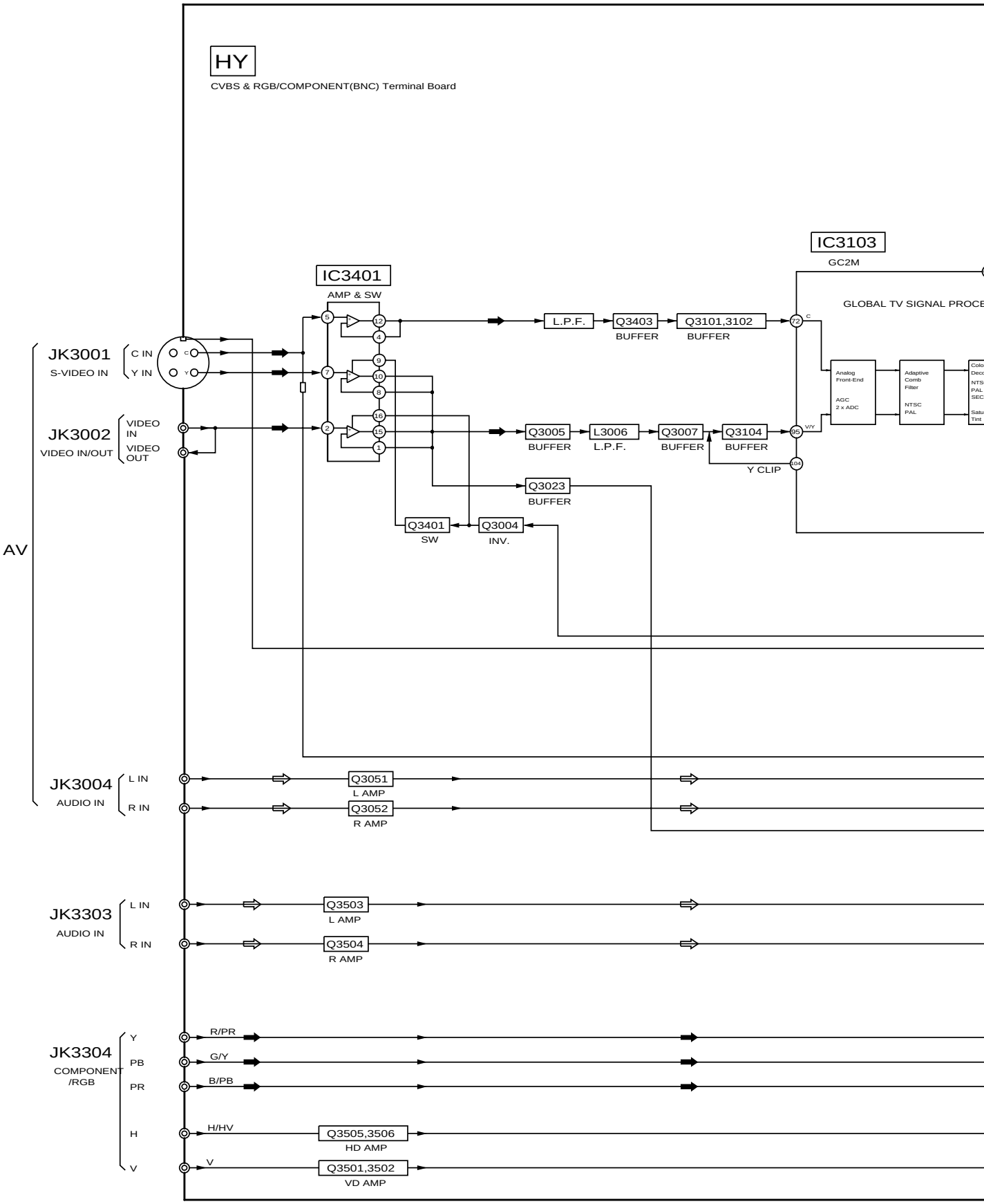
TH-50PHD6/TH-50PHW6
HX-BOARD Schematic Diagram



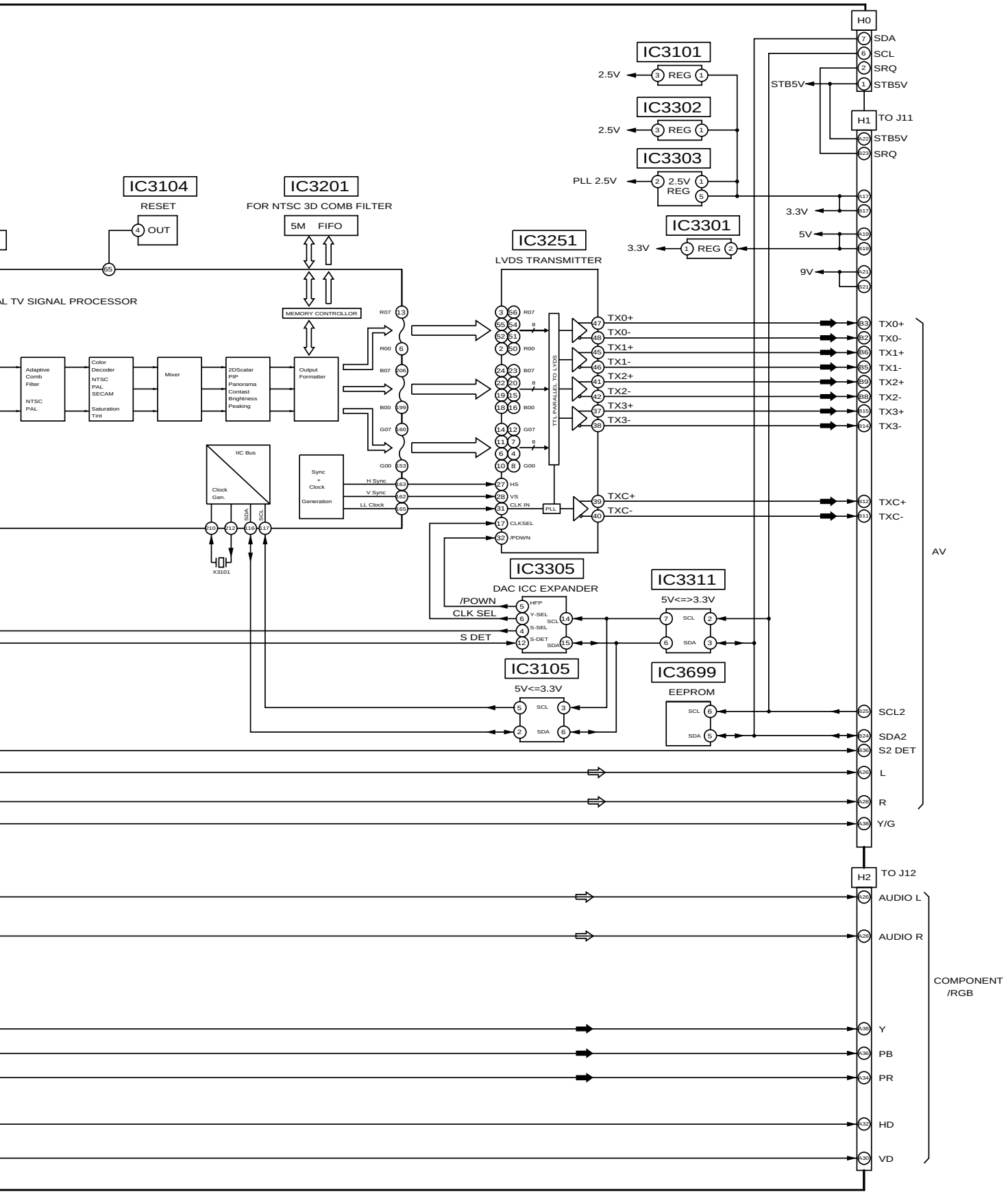
TH-50PHD6/TH-50PHW6
HX-BOARD Schematic Diagram

5 6 7 8

14.13. HY-Board Block Diagram

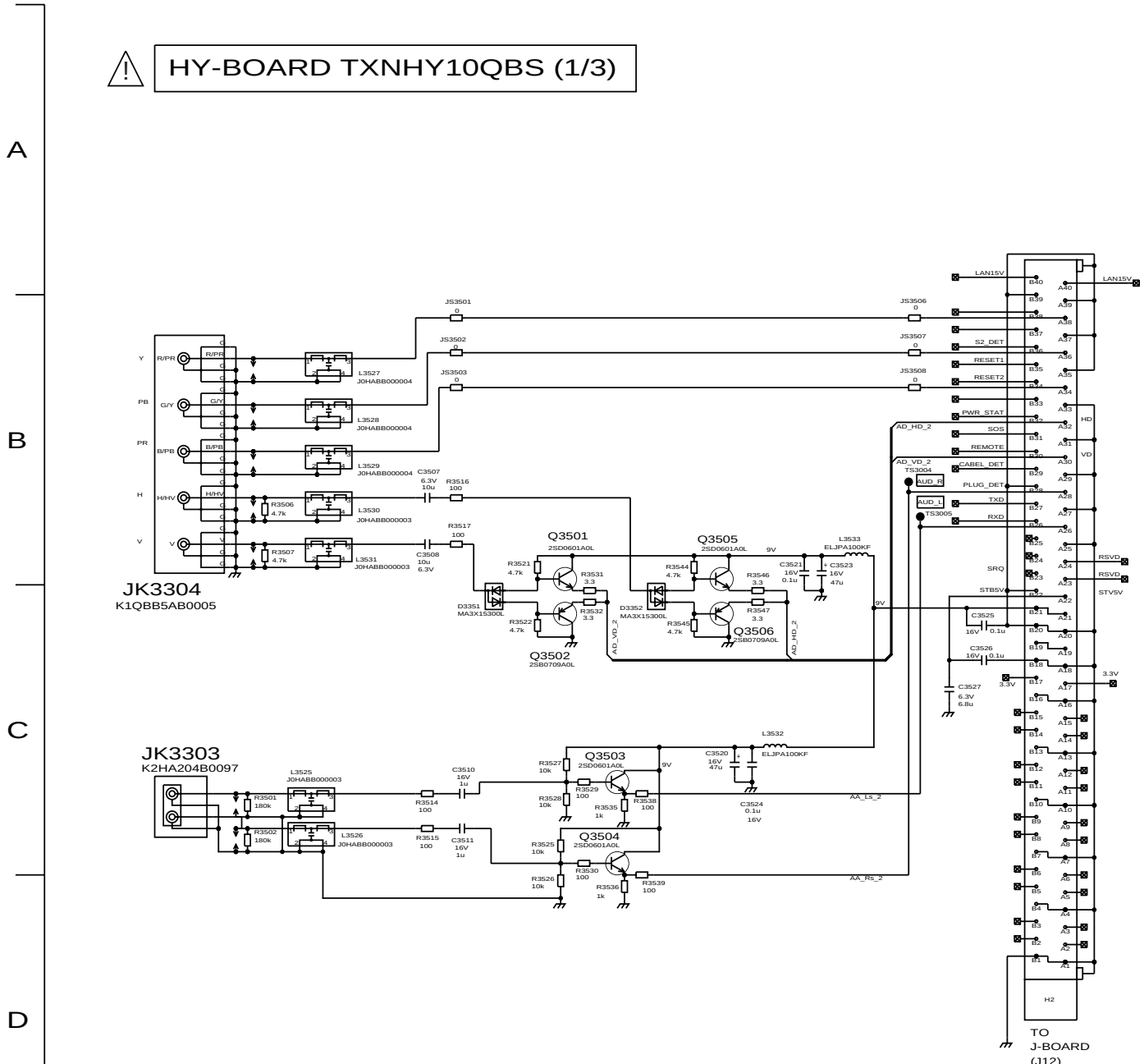


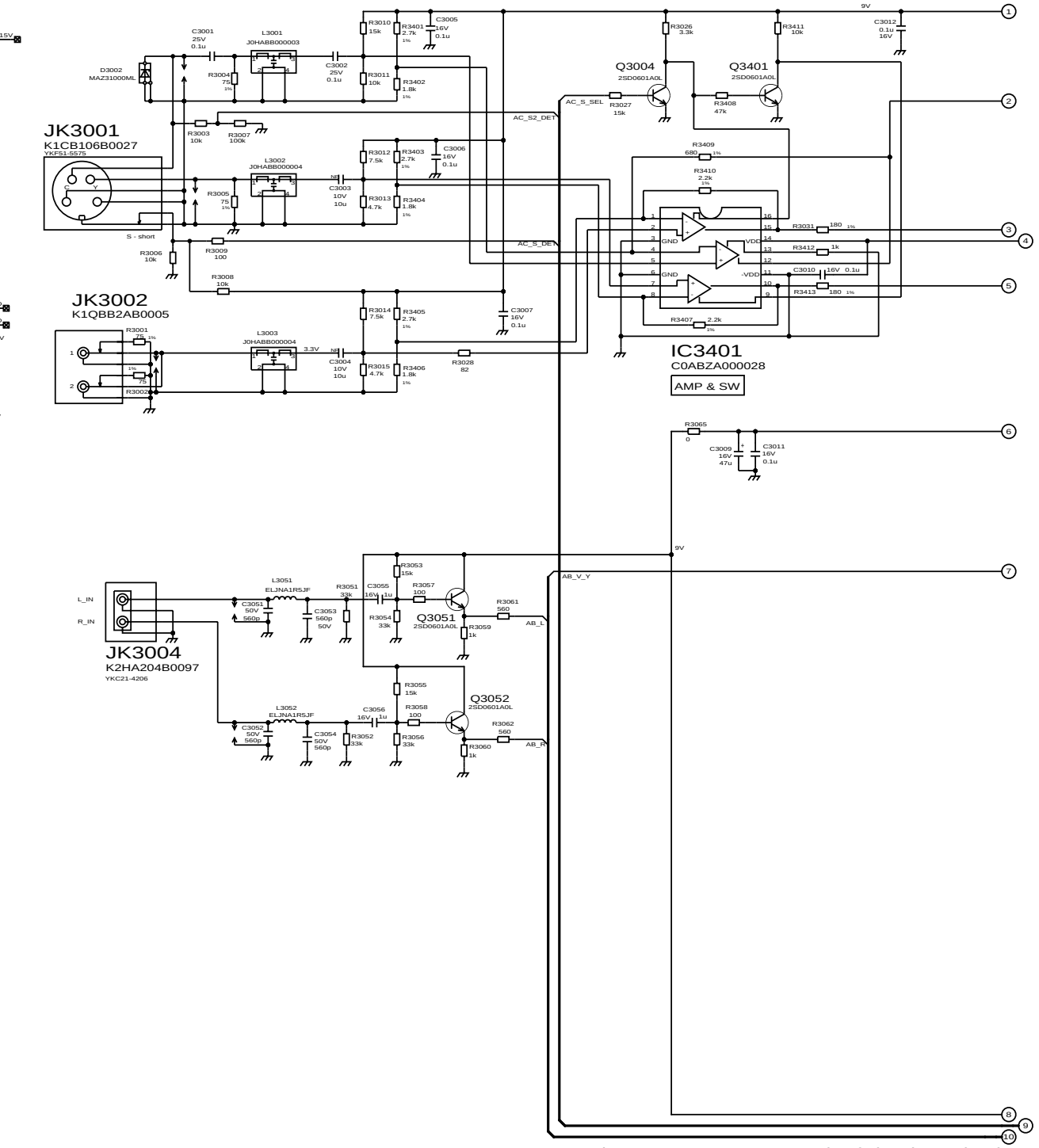
TH-50PHD6/TH-50PHW6
HY-BOARD Block Diagram



TH-50PHD6/TH-50PHW6
HY-BOARD Block Diagram

14.14. HY-Board (1 of 3) Schematic Diagram

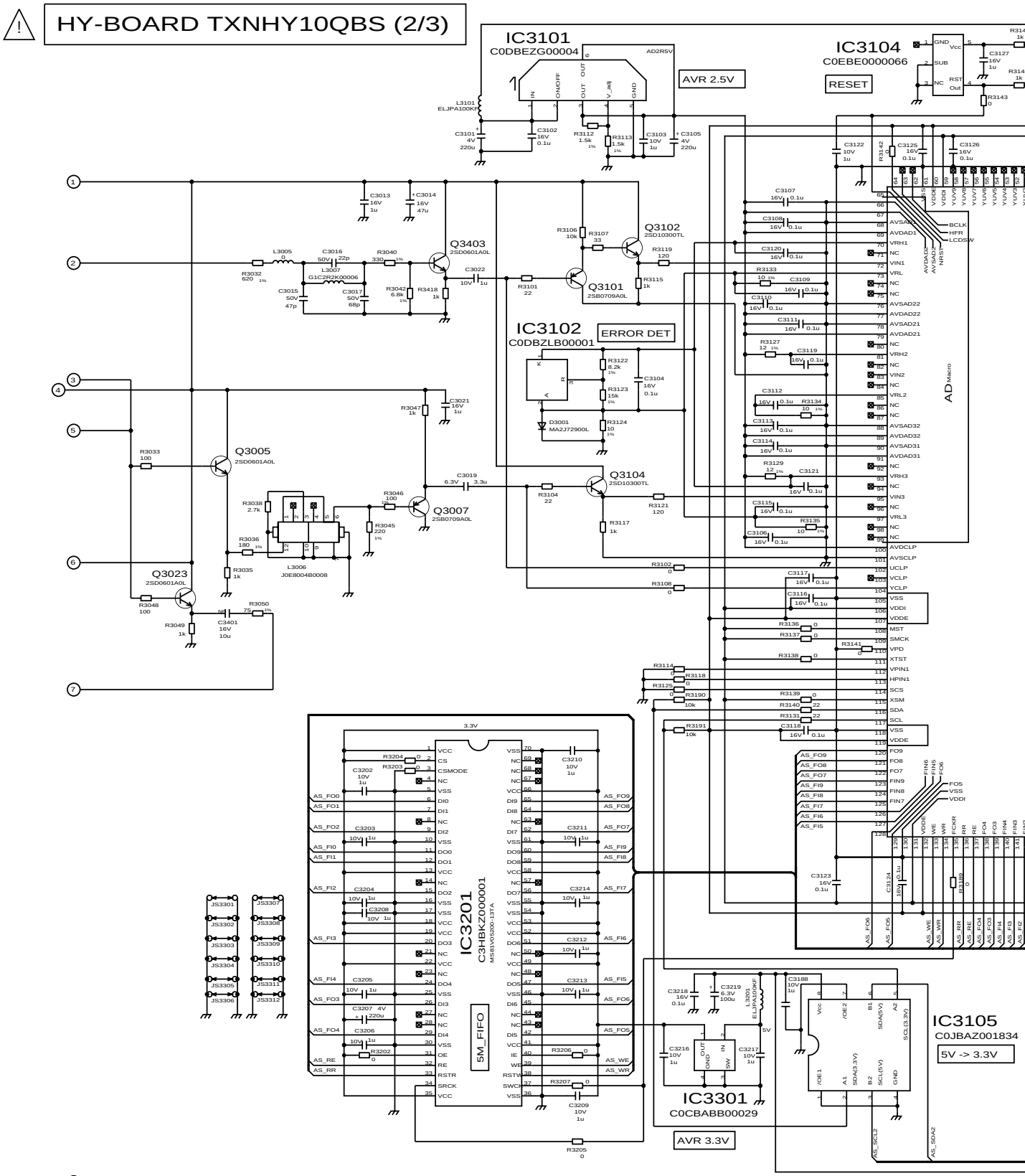


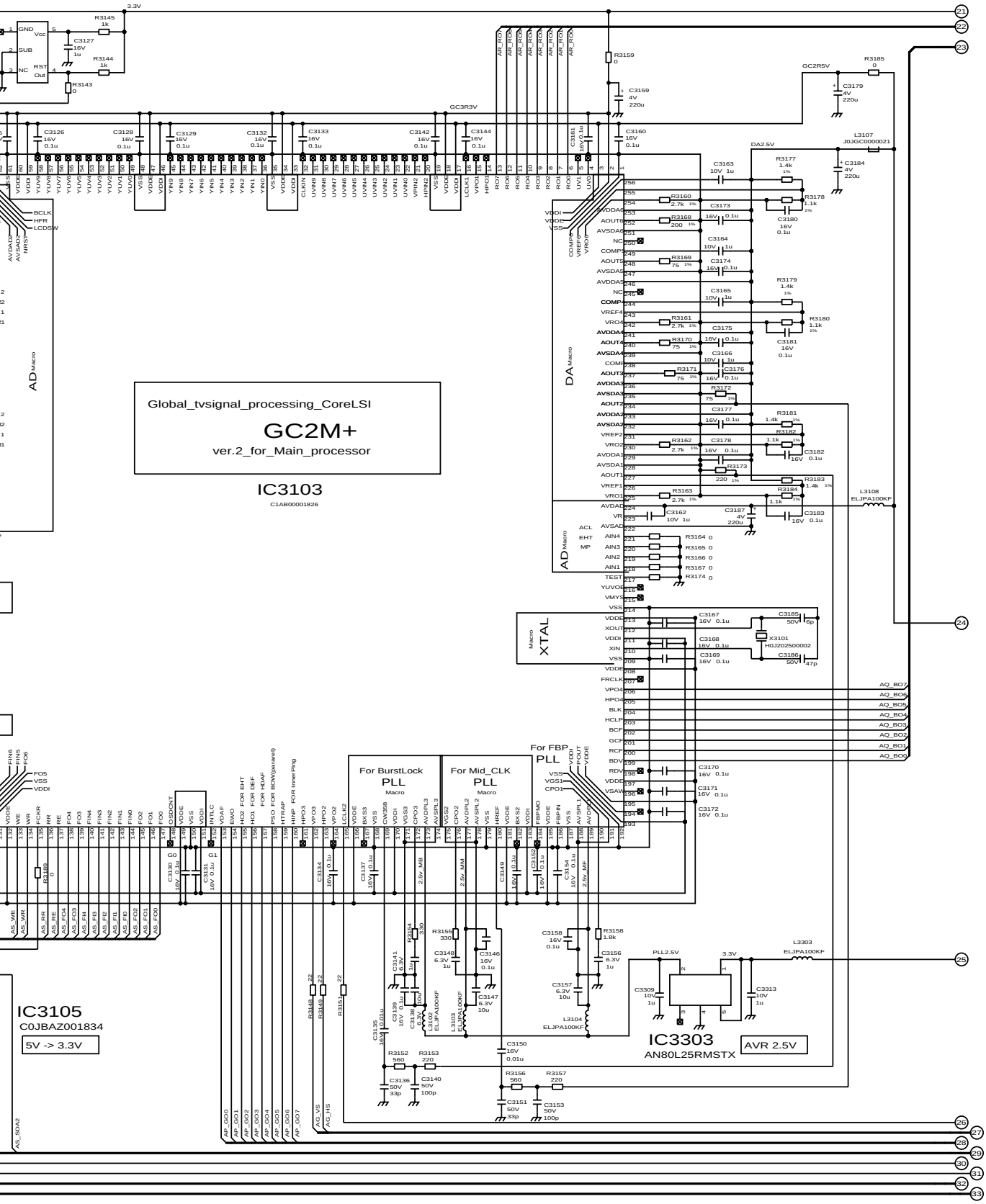


TH-50PHD6/TH-50PHW6 HY-BOARD (1 of 3) Schematic Diagram

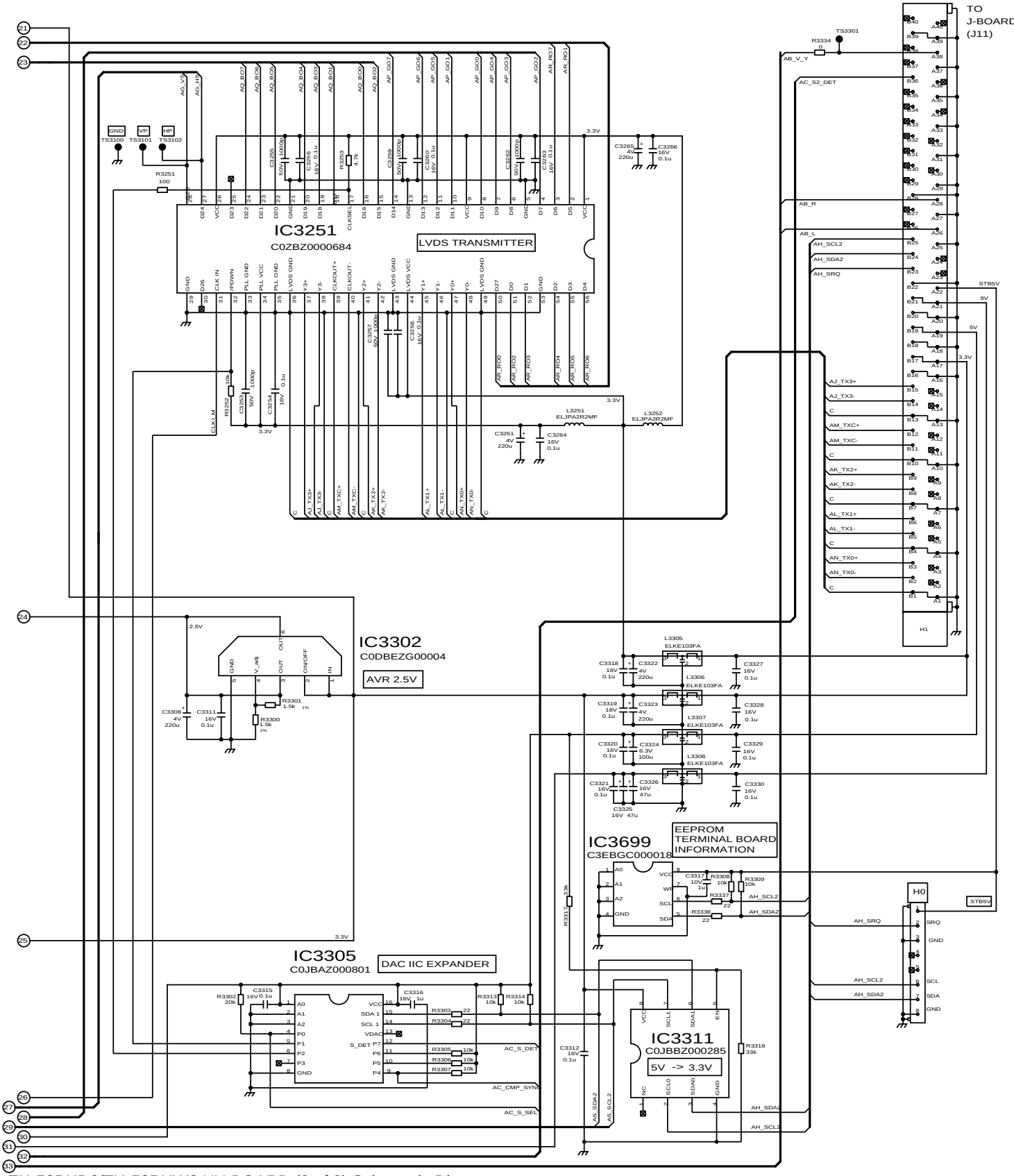
5 6 7 8

14.15. HY-Board (2 of 3) Schematic Diagram

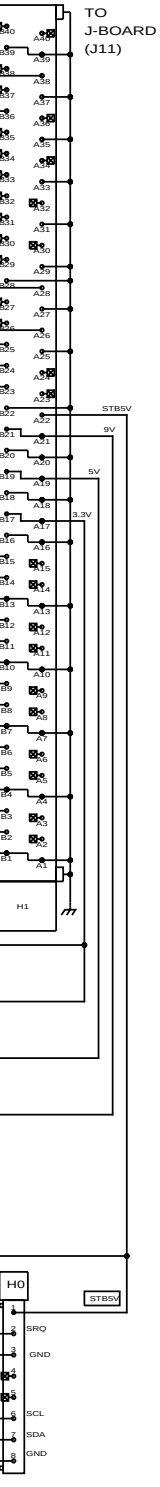



Global_tvsignal_processing_CoreLSI
GC2M+
ver.2_for_Main_processor
IC3103
C1AB00001826
IC3105
C0JBAZ001834
5V -> 3.3V
IC3303
AN80L25RMSTX
AVR 2.5V
For BurstLock PLL Macro
For Mid_CLK PLL Macro
For FBP PLL
AD Macro
DA Macro
XTAL Macro
3.3V
GC3R3V
GC2R5V
DA2.5V
PLL2.5V

14.16. HY-Board (3 of 3) Schematic Diagram

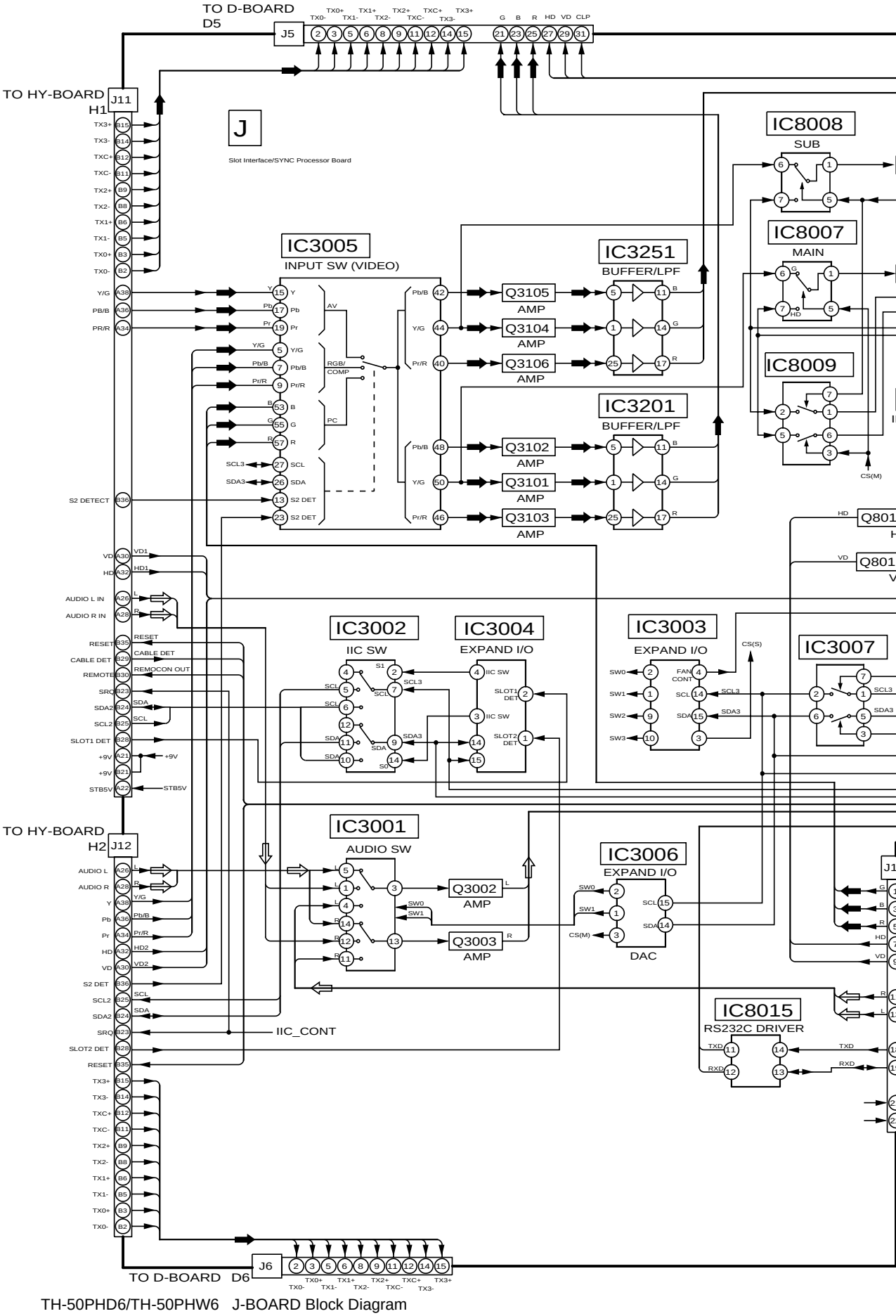


TH-50PHD6/TH-50PHW6 HY-BOARD (3 of 3) Schematic Diagram

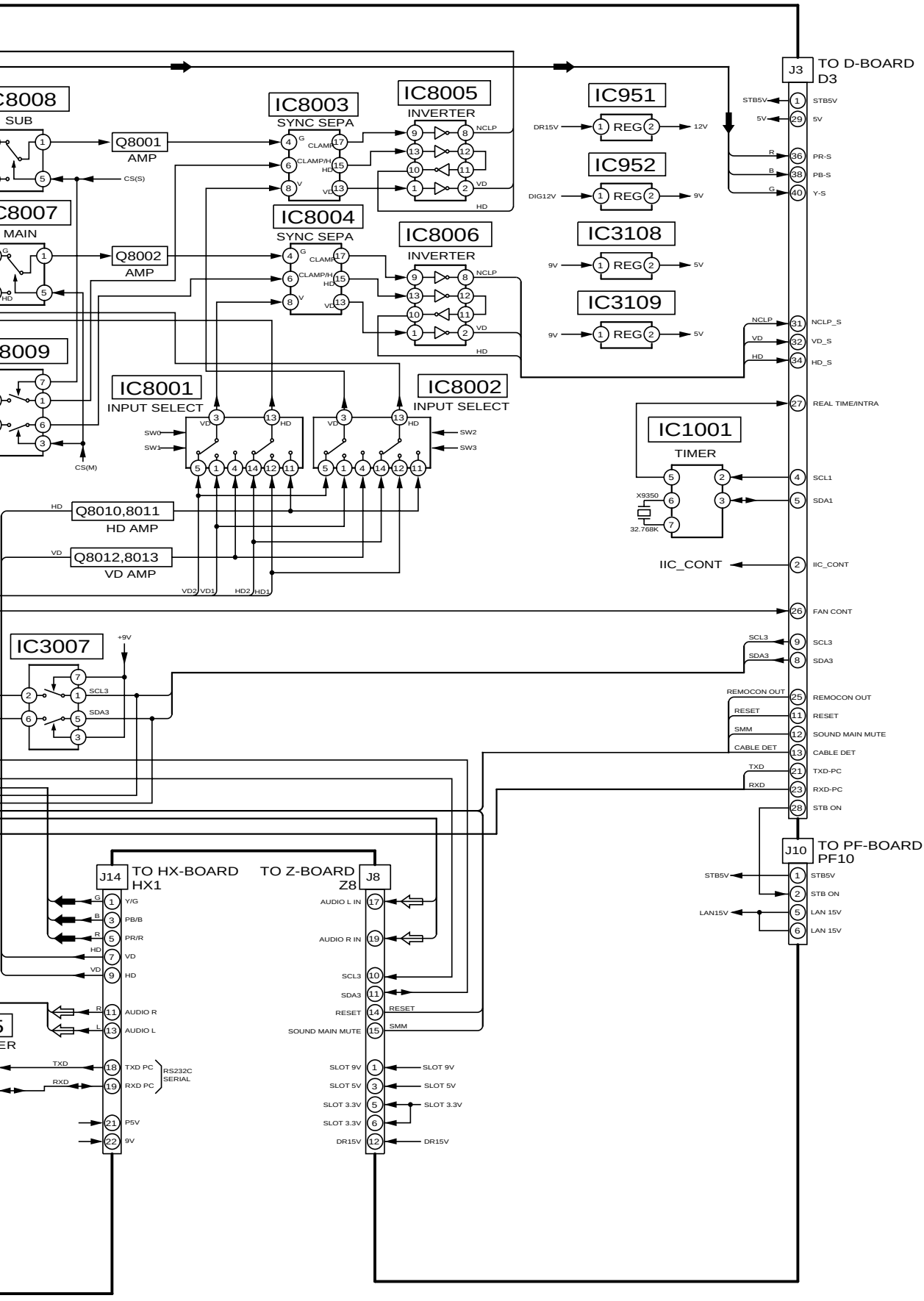


HY-BOARD TXNHY10QBS (3/3)

14.17. J-Board Block Diagram

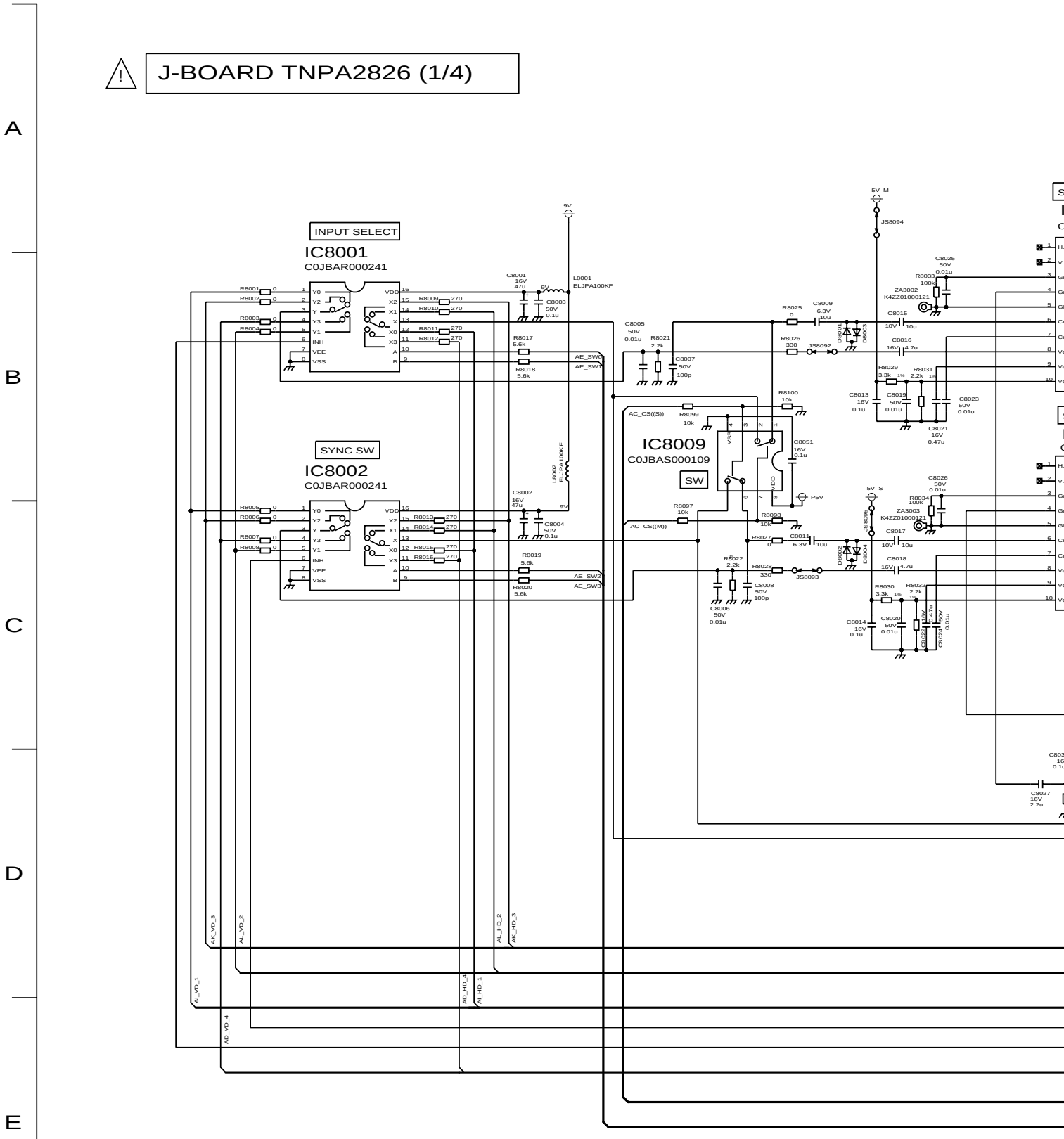


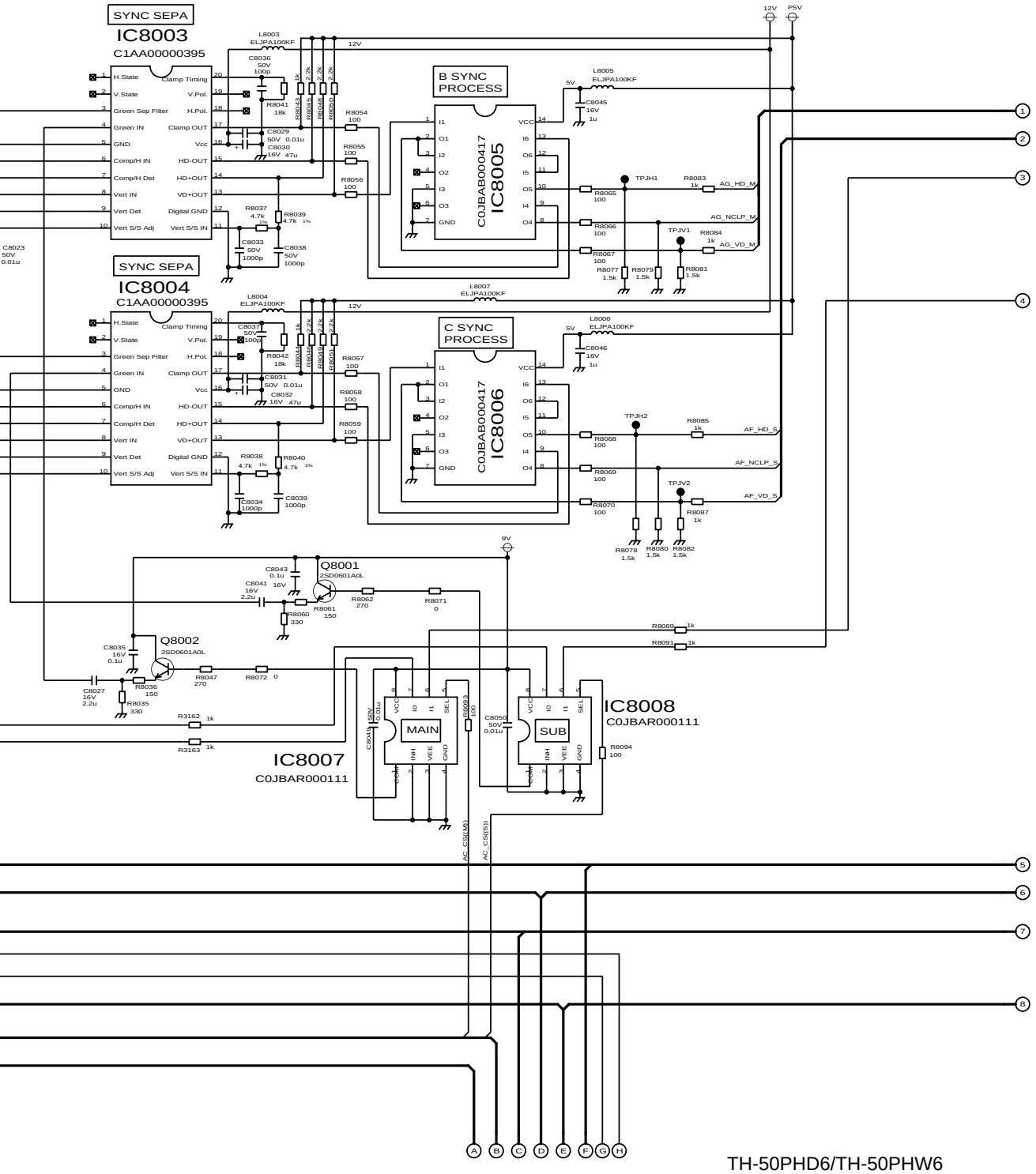
TH-50PHD6/TH-50PHW6 J-BOARD Block Diagram



TH-50PHD6/TH-50PHW6 J-BOARD Block Diagram

14.18. J-Board (1 of 4) Schematic Diagram



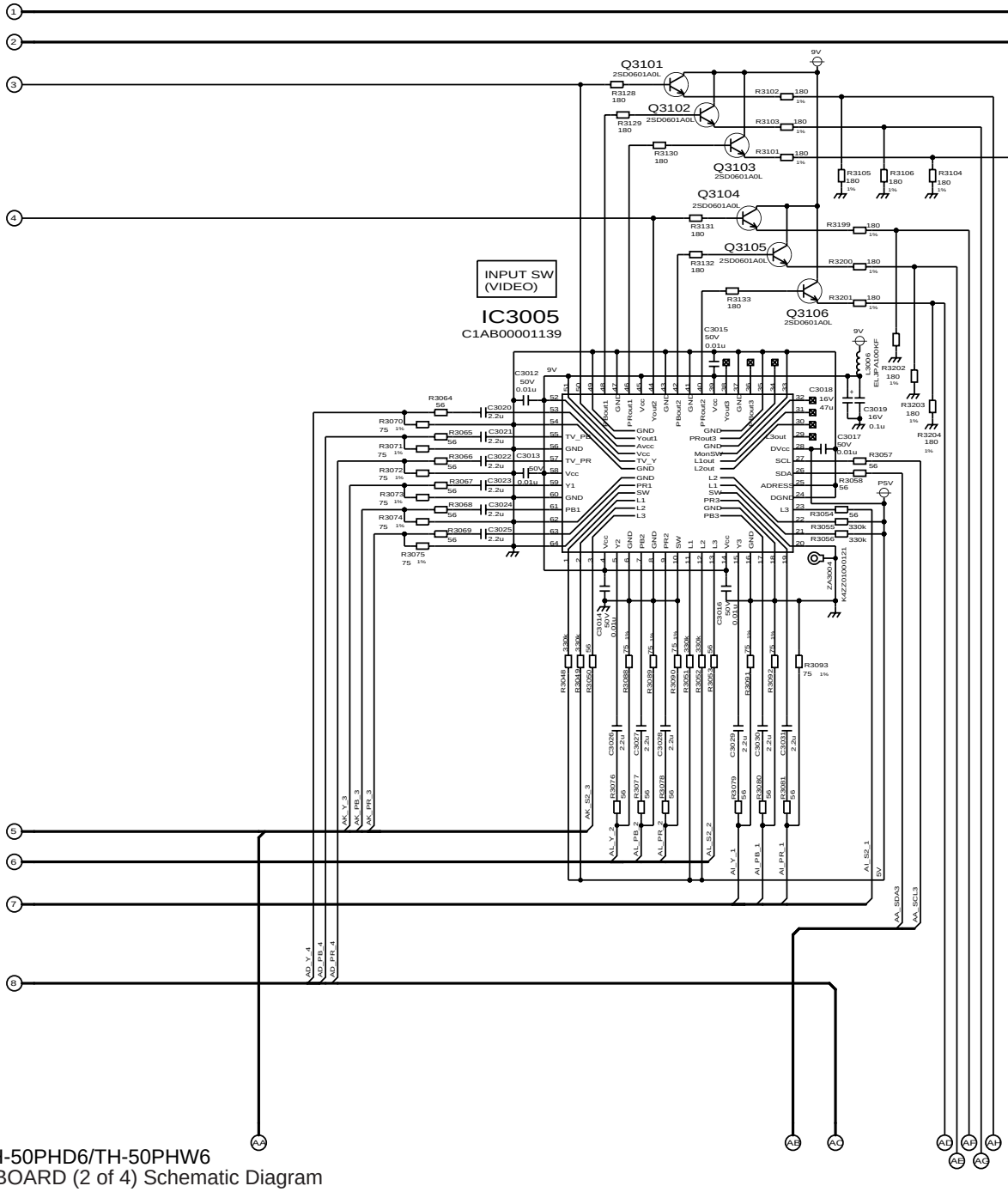


TH-50PHD6/TH-50PHW6
J-BOARD (1 of 4) Schematic Diagram

5 6 7 8

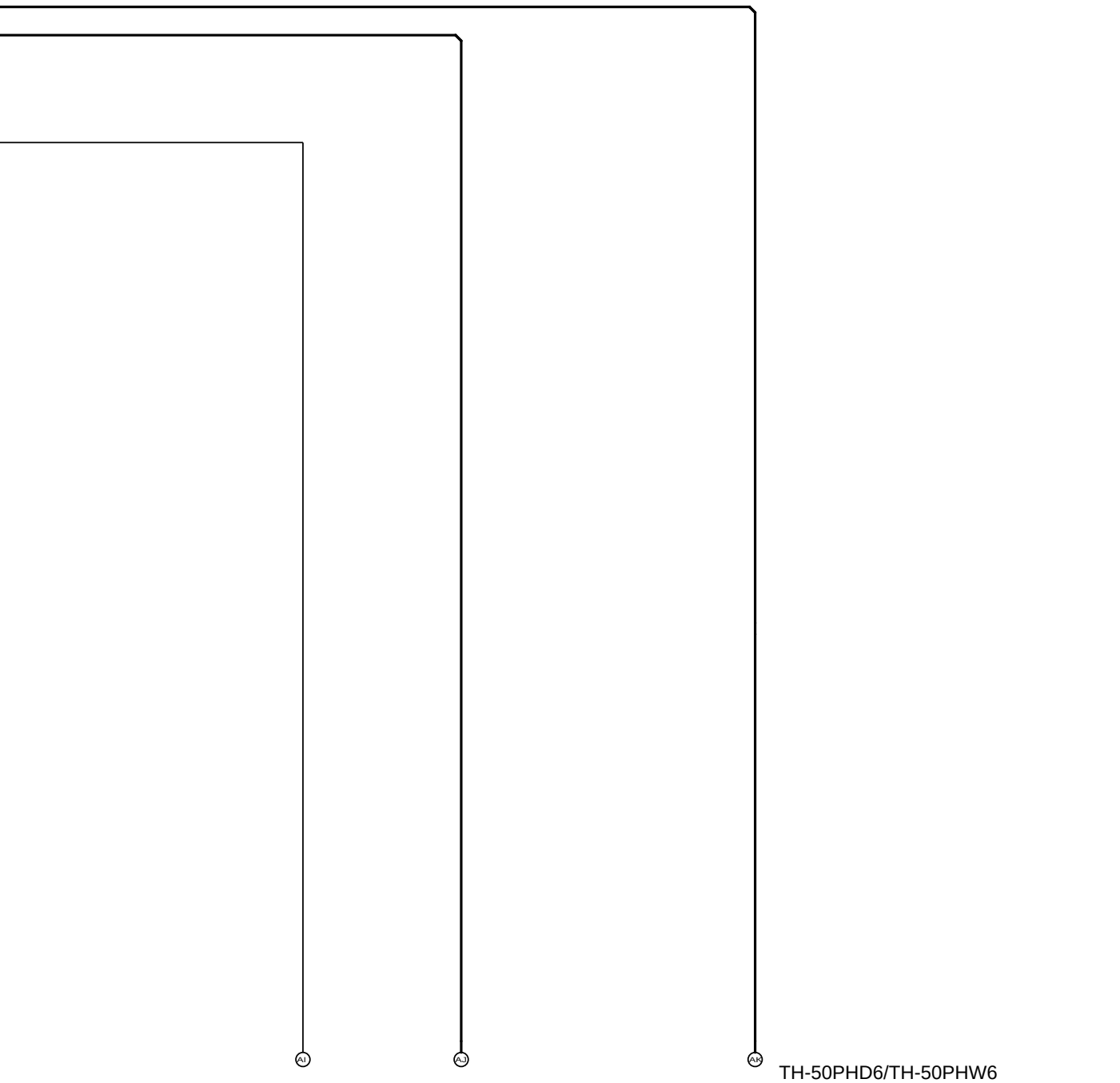
14.19. J-Board (2 of 4) Schematic Diagram

⚠ J-BOARD TNPA2826 (2/4)



TH-50PHD6/TH-50PHW6
J-BOARD (2 of 4) Schematic Diagram

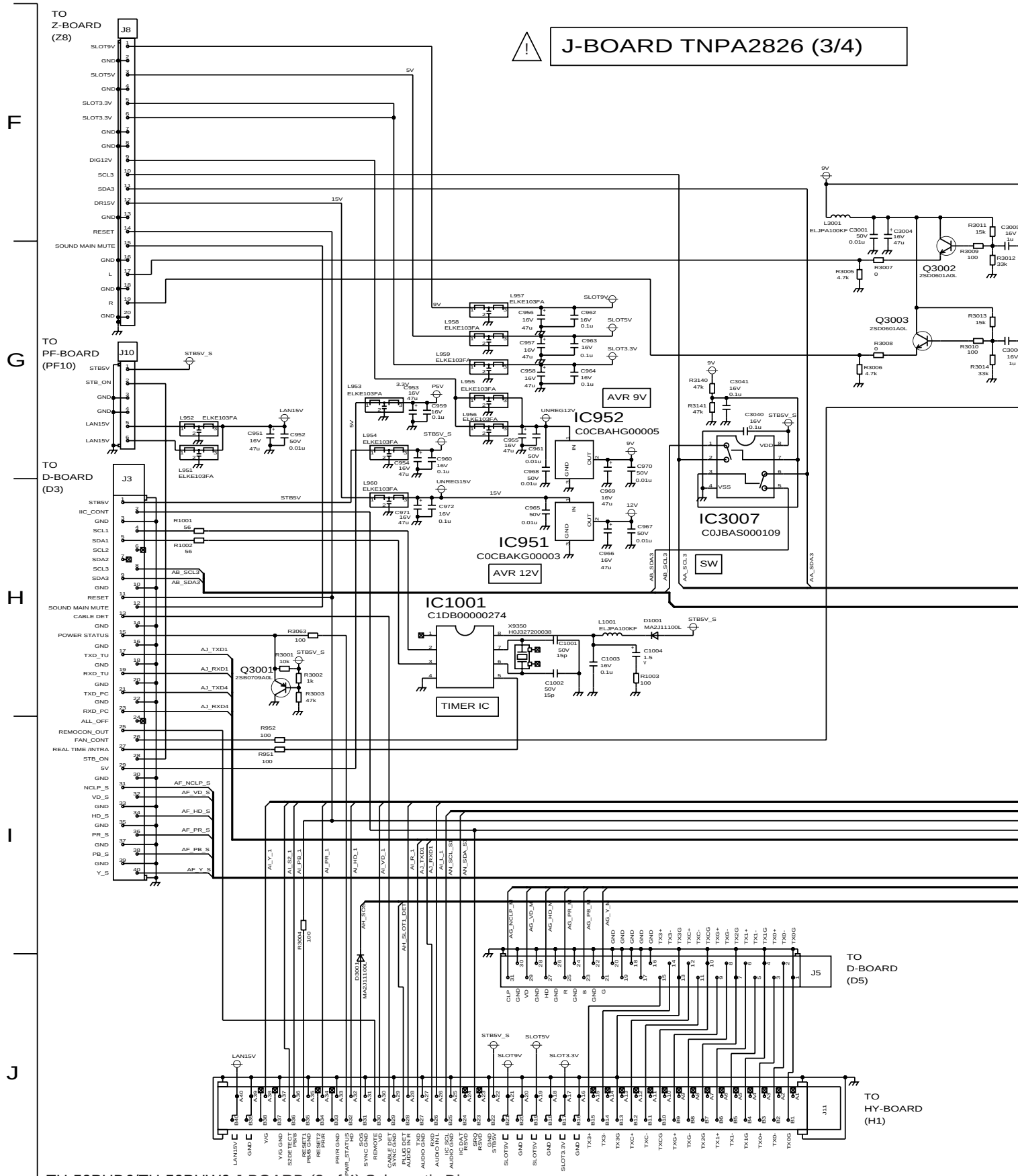
8 9 10 11 12



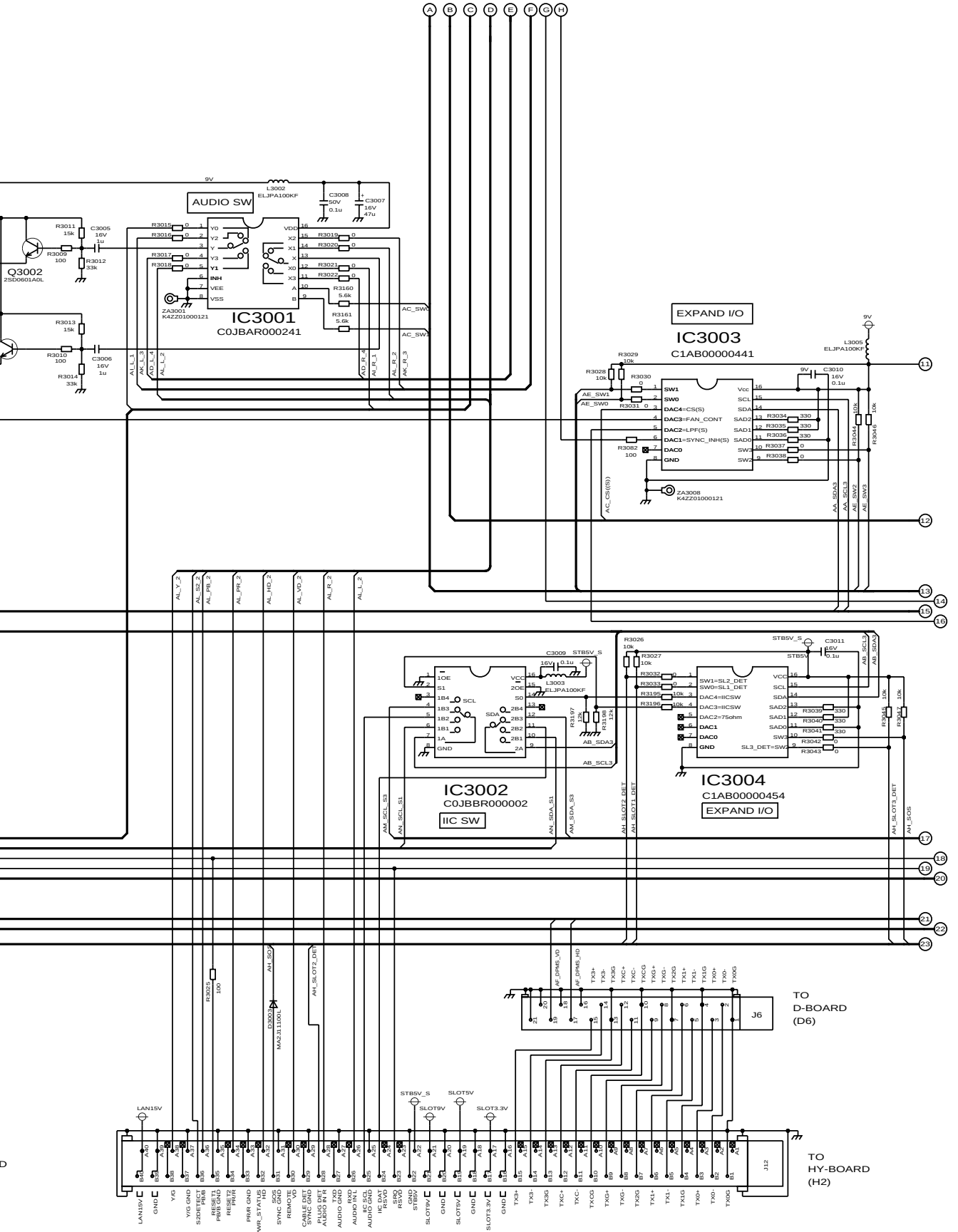
TH-50PHD6/TH-50PHW6
J-BOARD (2 of 4) Schematic Diagram

12 13 14 15

14.20. J-Board (3 of 4) Schematic Diagram

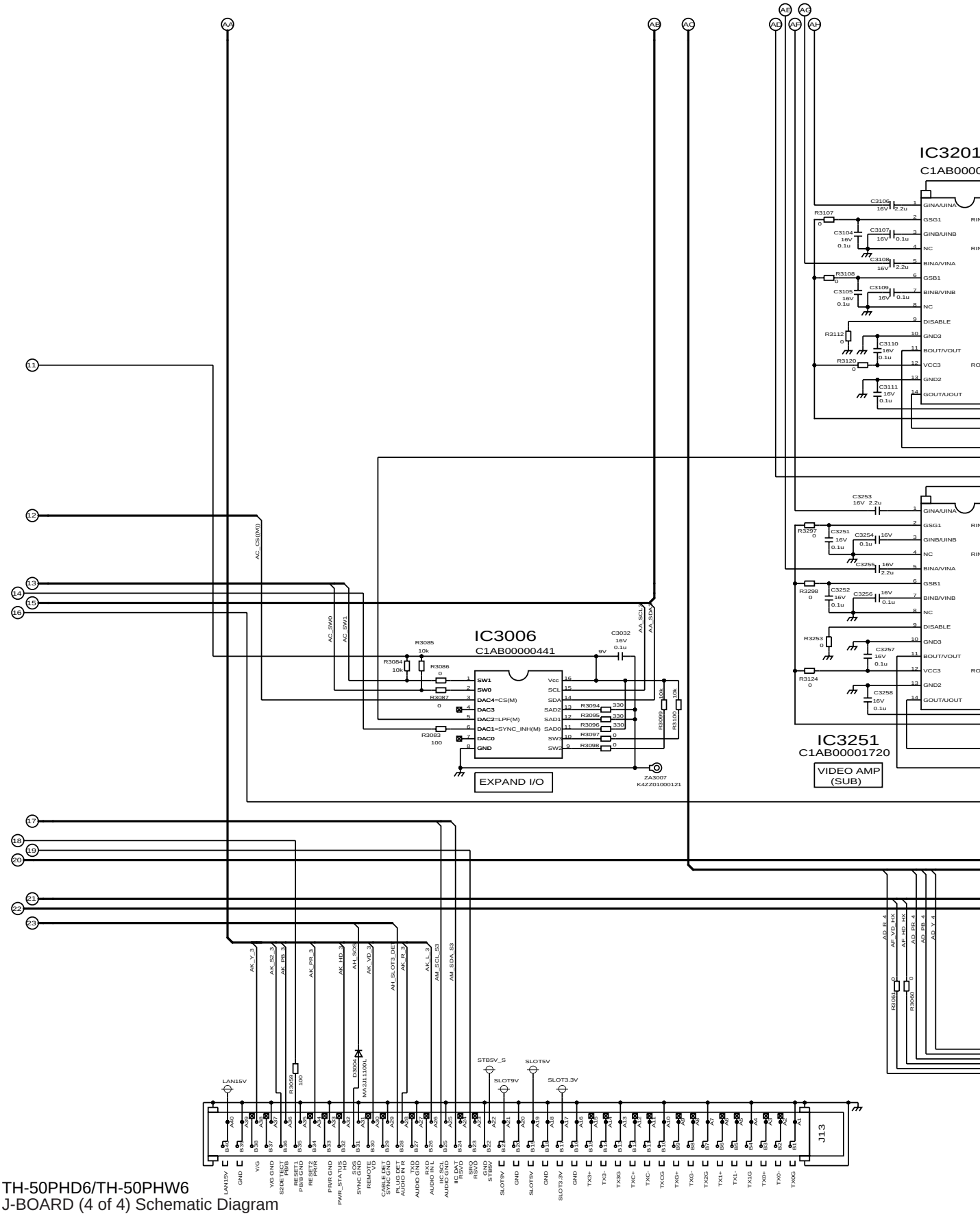


TH-50PHD6/TH-50PHW6 J-BOARD (3 of 4) Schematic Diagram

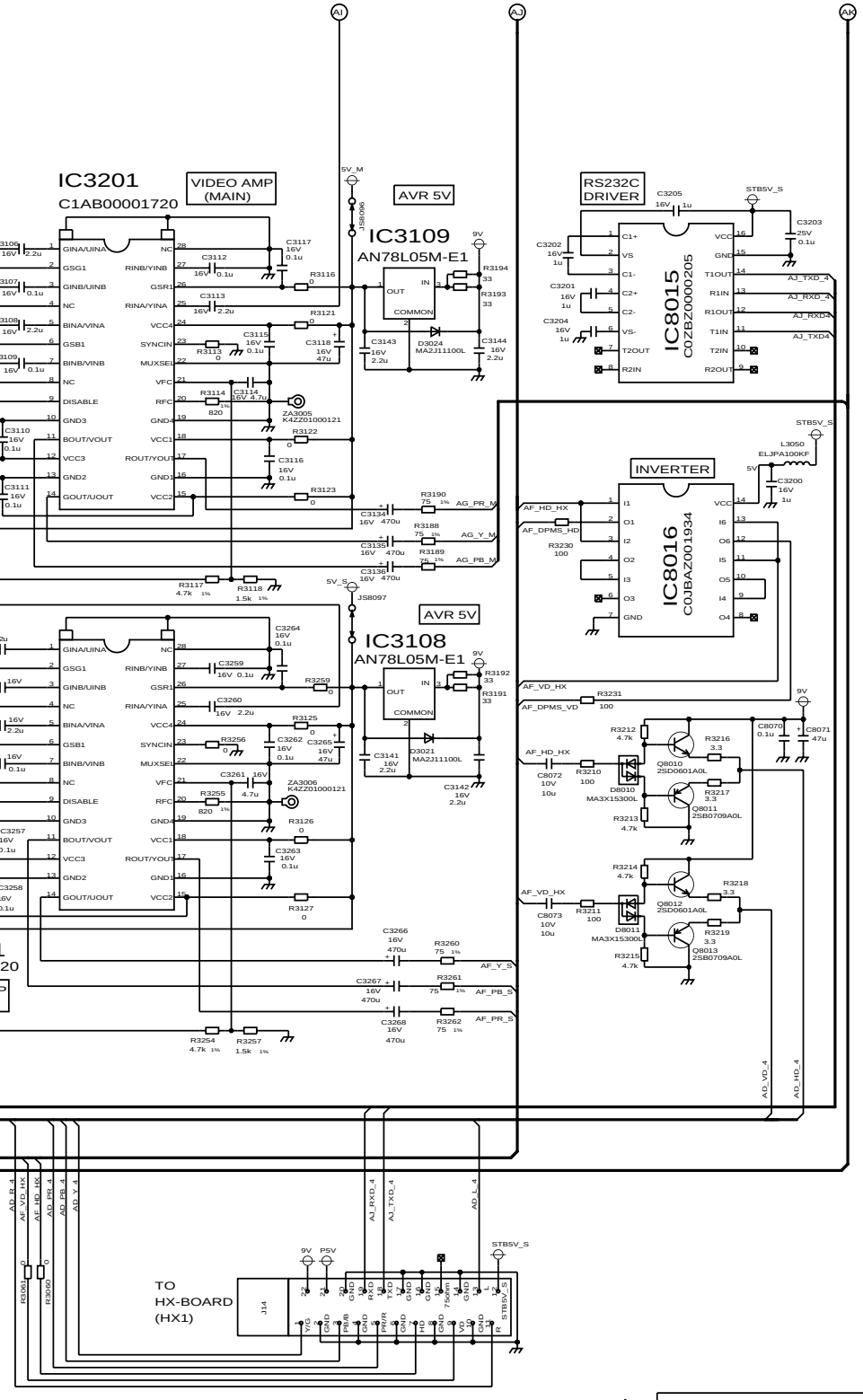


TH-50PHD6/TH-50PHW6 J-BOARD (3 of 4) Schematic Diagram

14.21. J-Board (4 of 4) Schematic Diagram

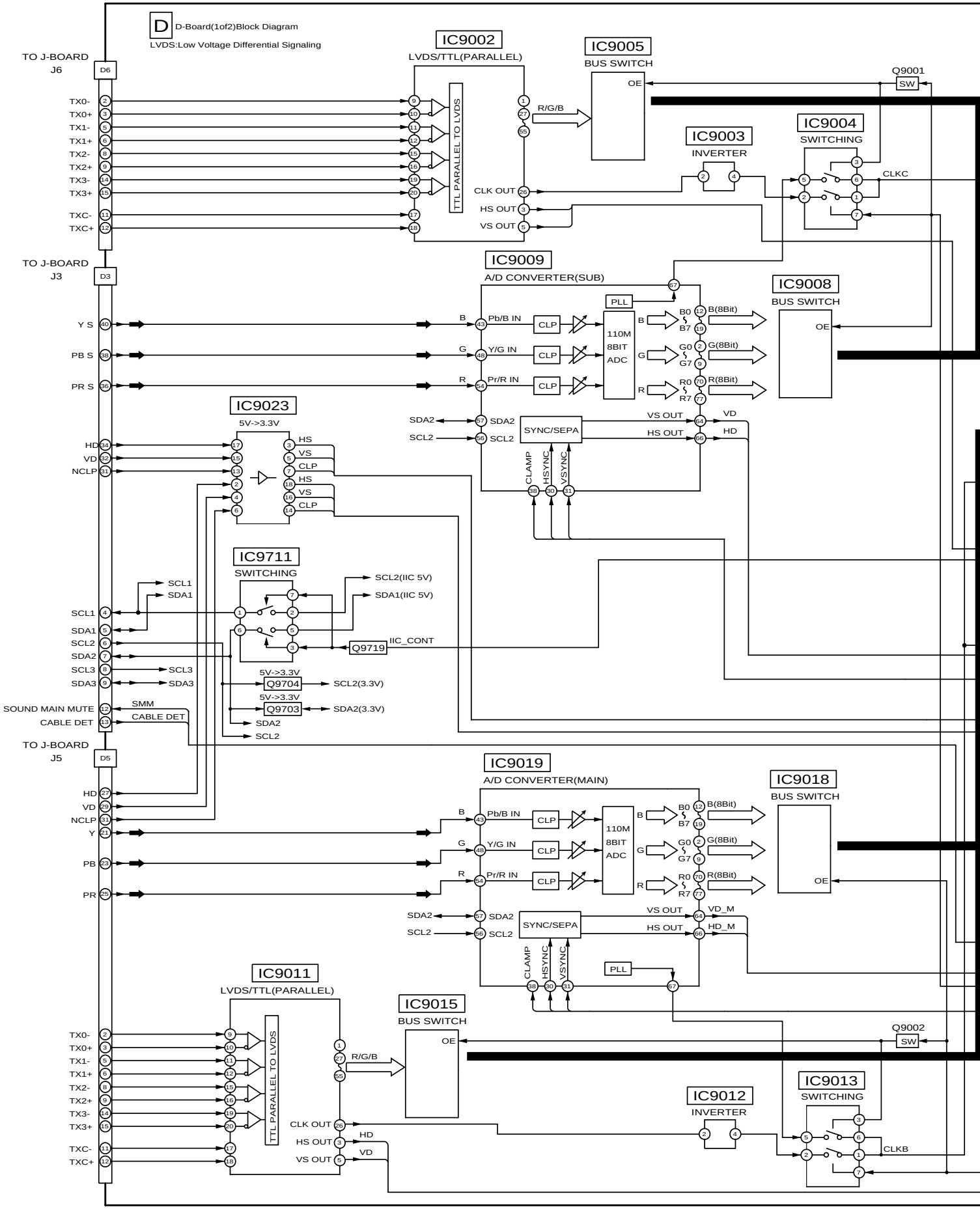


TH-50PHD6/TH-50PHW6
J-BOARD (4 of 4) Schematic Diagram

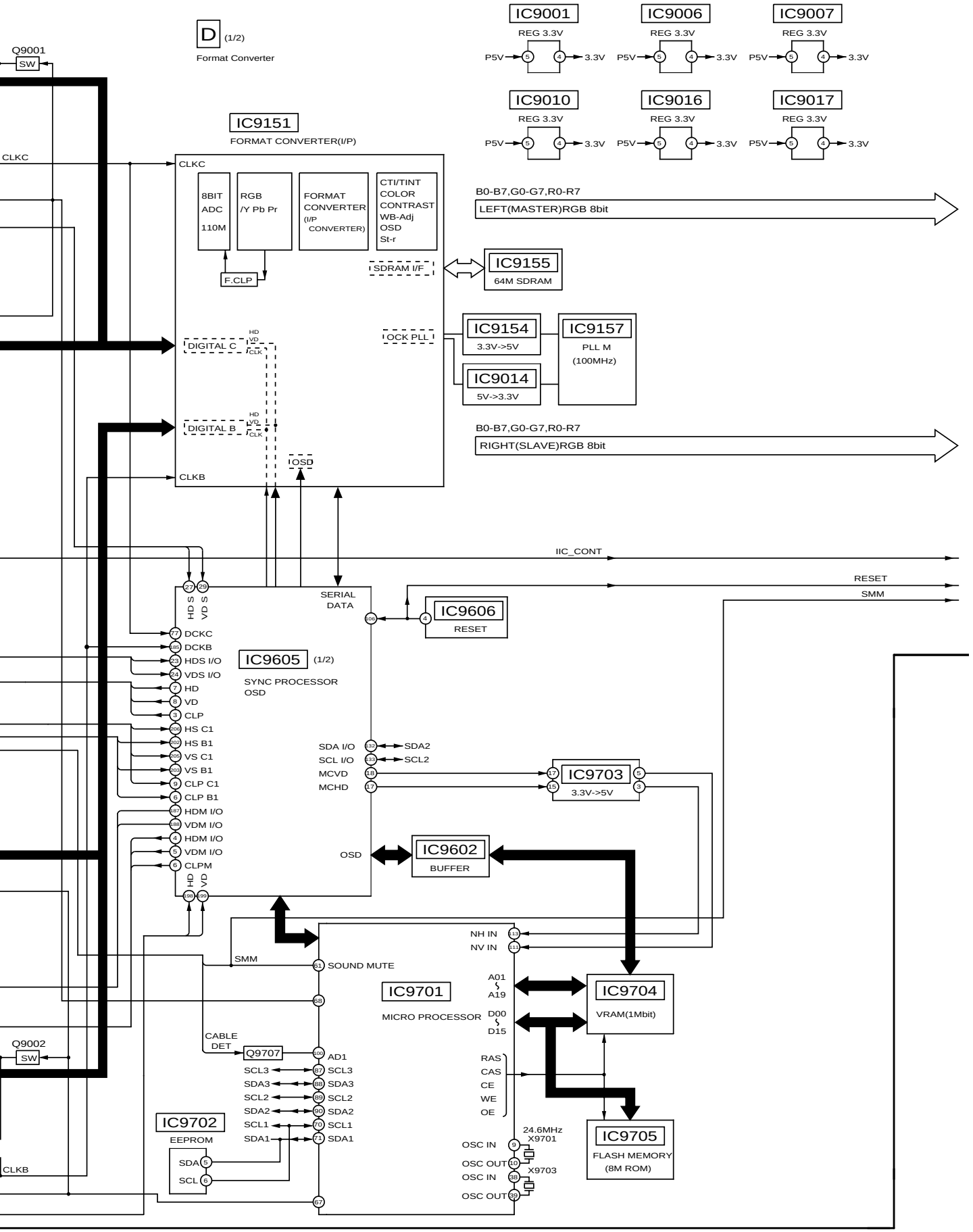


J-BOARD TNPA2826 (4/4)

14.22. D-Board (1 of 2) Block Diagram

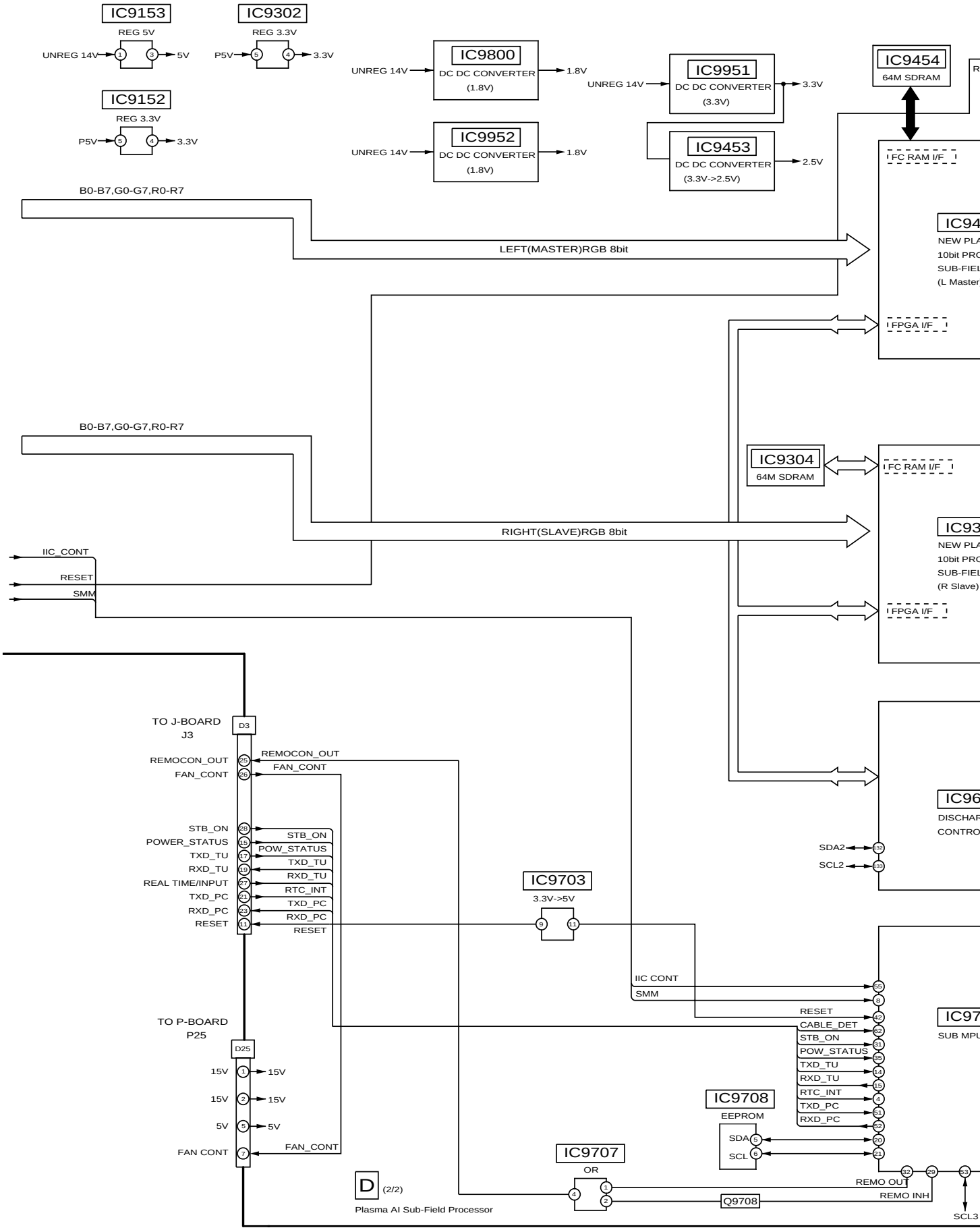


TH-50PHD6/TH-50PHW6 D-BOARD Block Diagram (1 of 2)

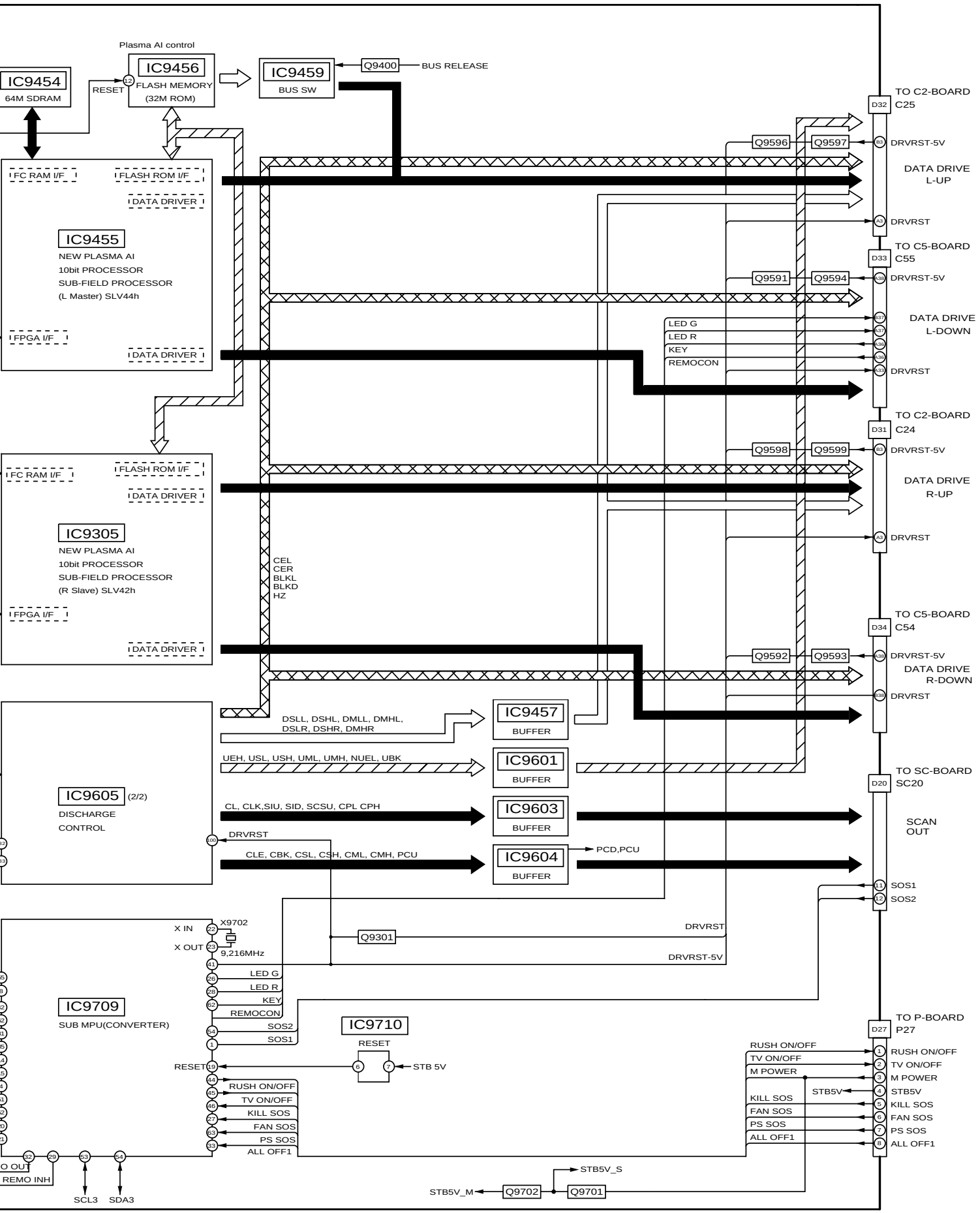


TH-50PHD6/TH-50PHW6 D-BOARD Block Diagram (1 of 2)

14.23. D-Board (2 of 2) Block Diagram

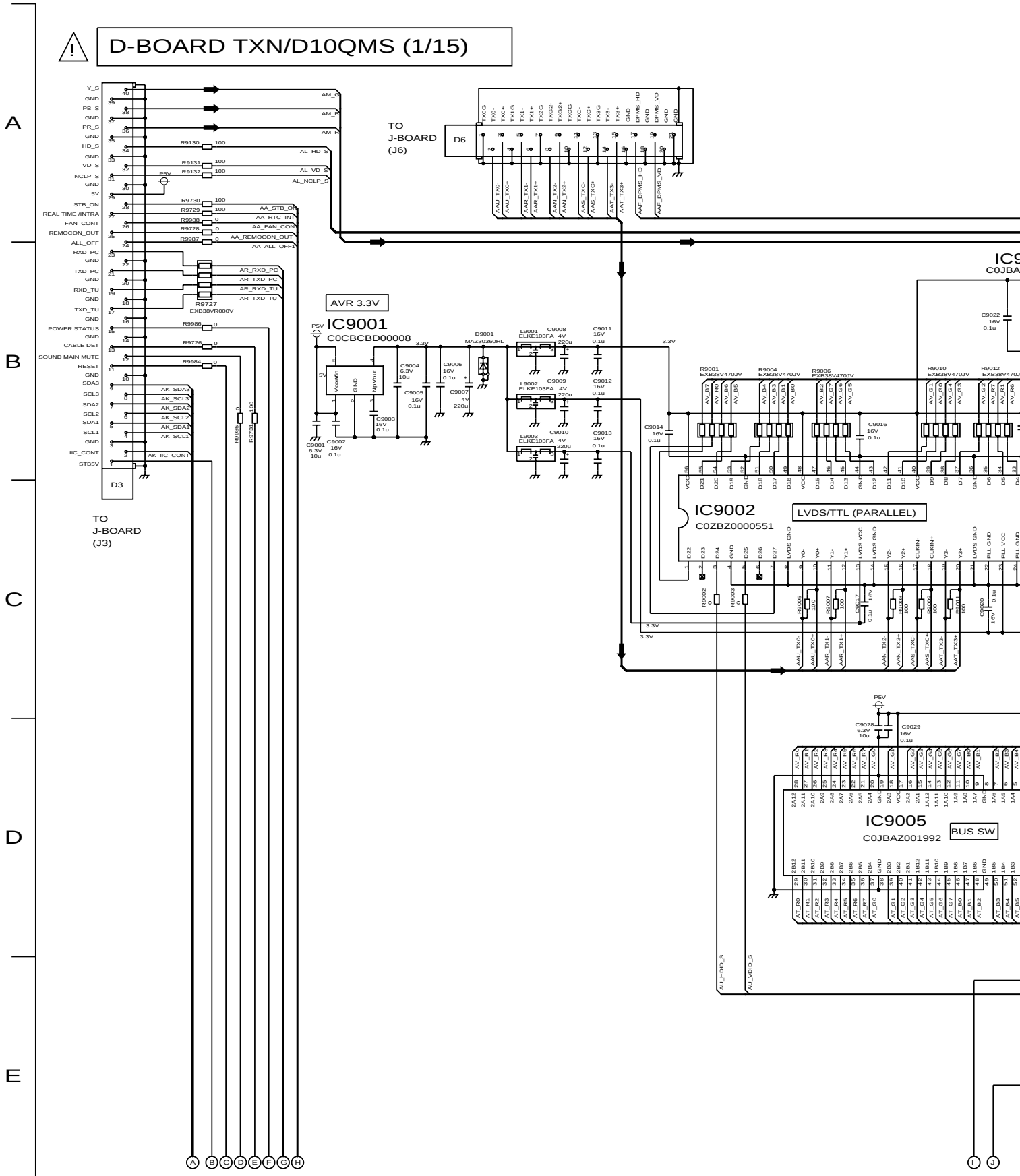


TH-50PHD6/TH-50PHW6 D-BOARD Block Diagram (2 of 2)

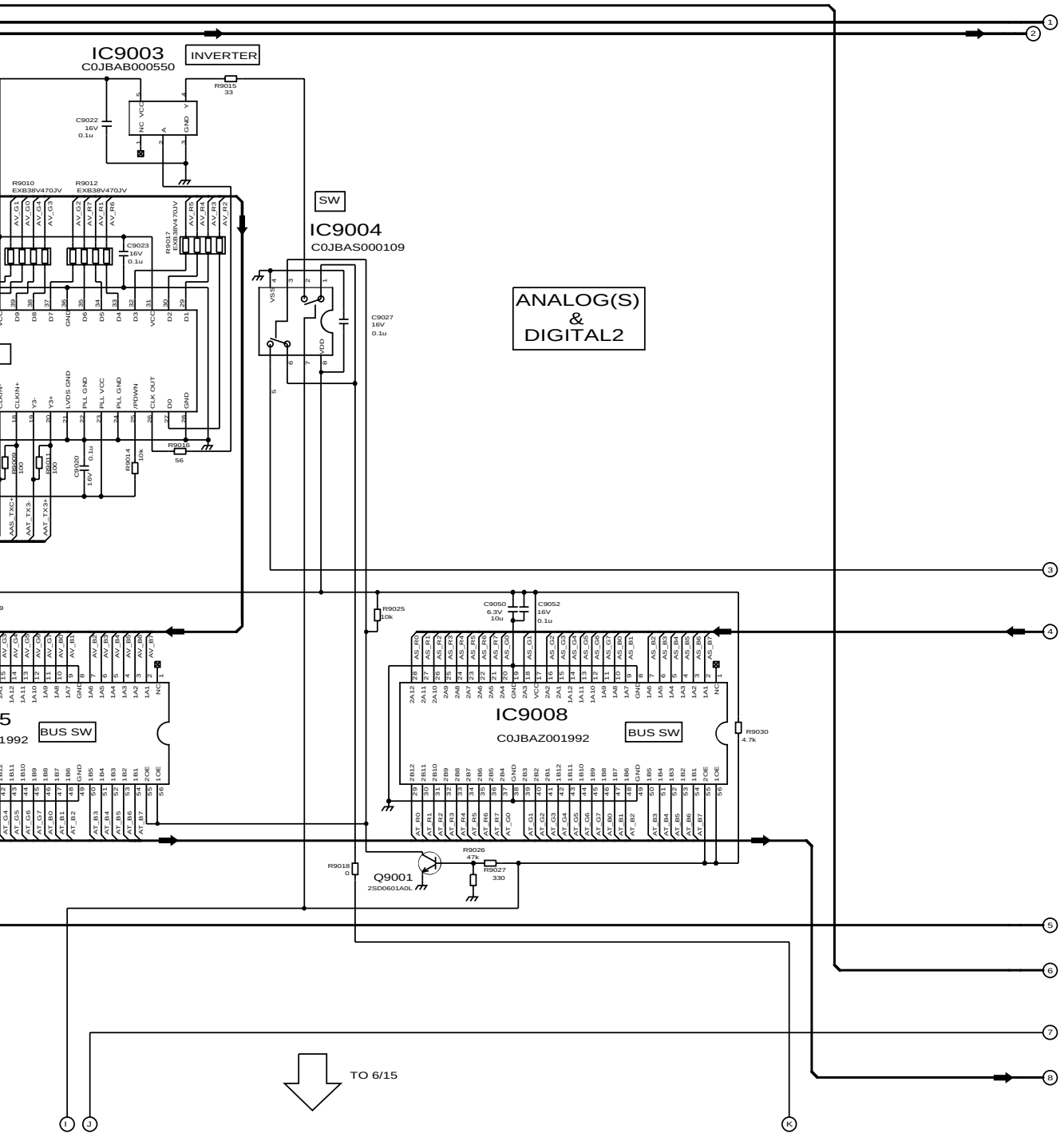


TH-50PHD6/TH-50PHW6 D-BOARD Block Diagram (2 of 2)

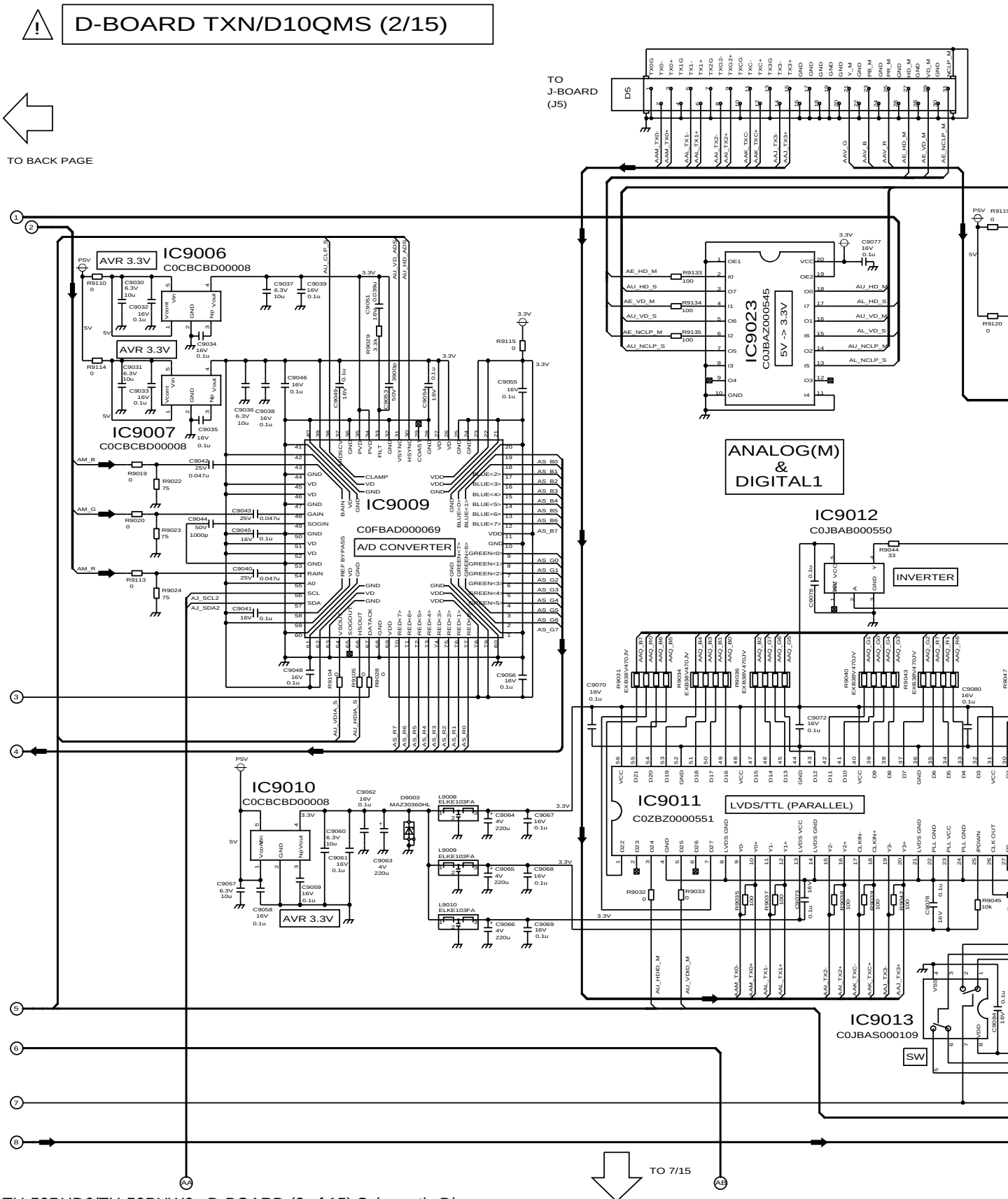
14.24. D-Board (1 of 15) Schematic Diagram

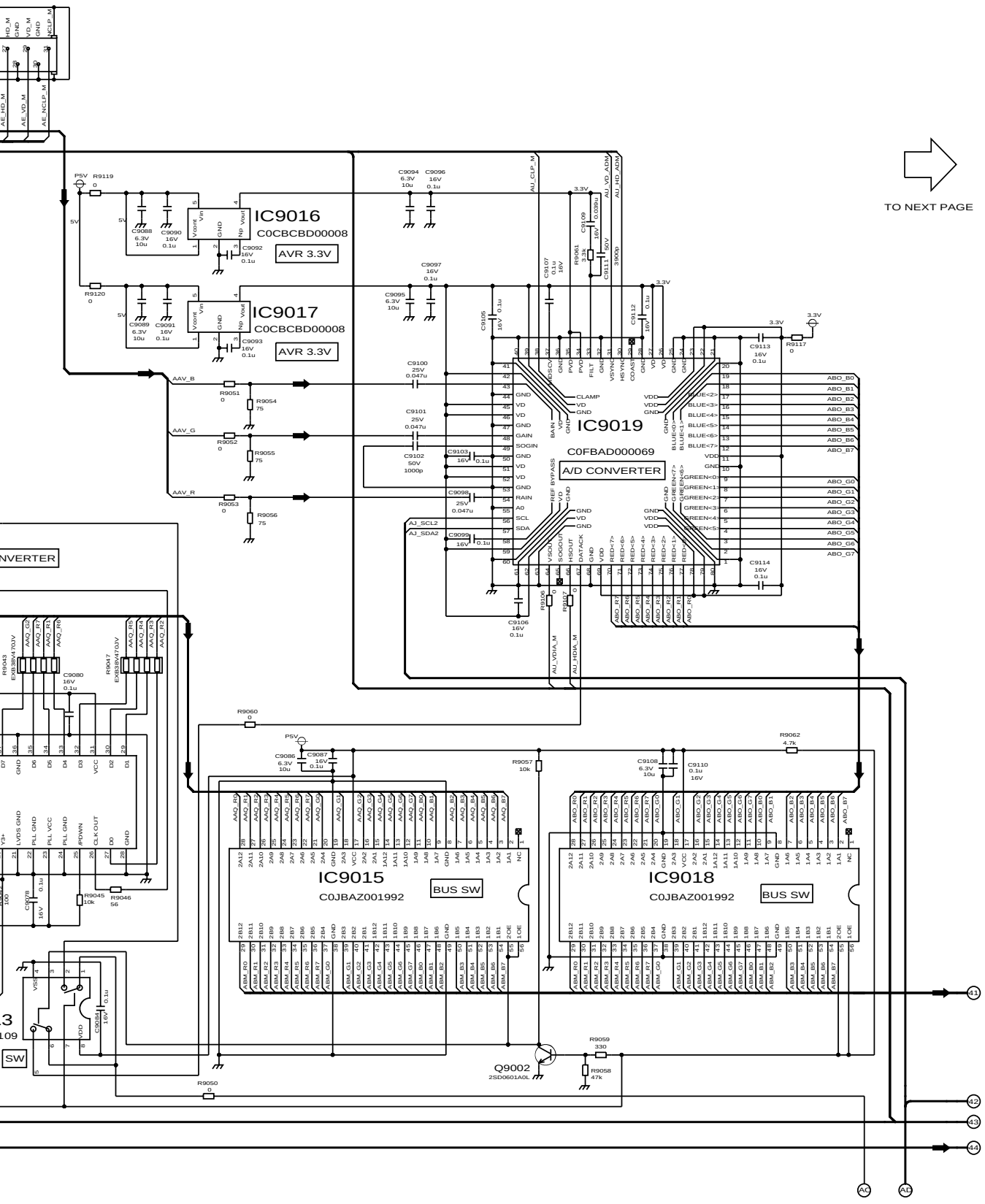


TO NEXT PAGE


IC9003
C0JBAB000550
INVERTER
SW
IC9004
C0JBAS000109
ANALOG(S)
&
DIGITAL2
IC9008
C0JBAZ001992
BUS SW
BUS SW
Q9001
2SD0601A0L
TO 6/15

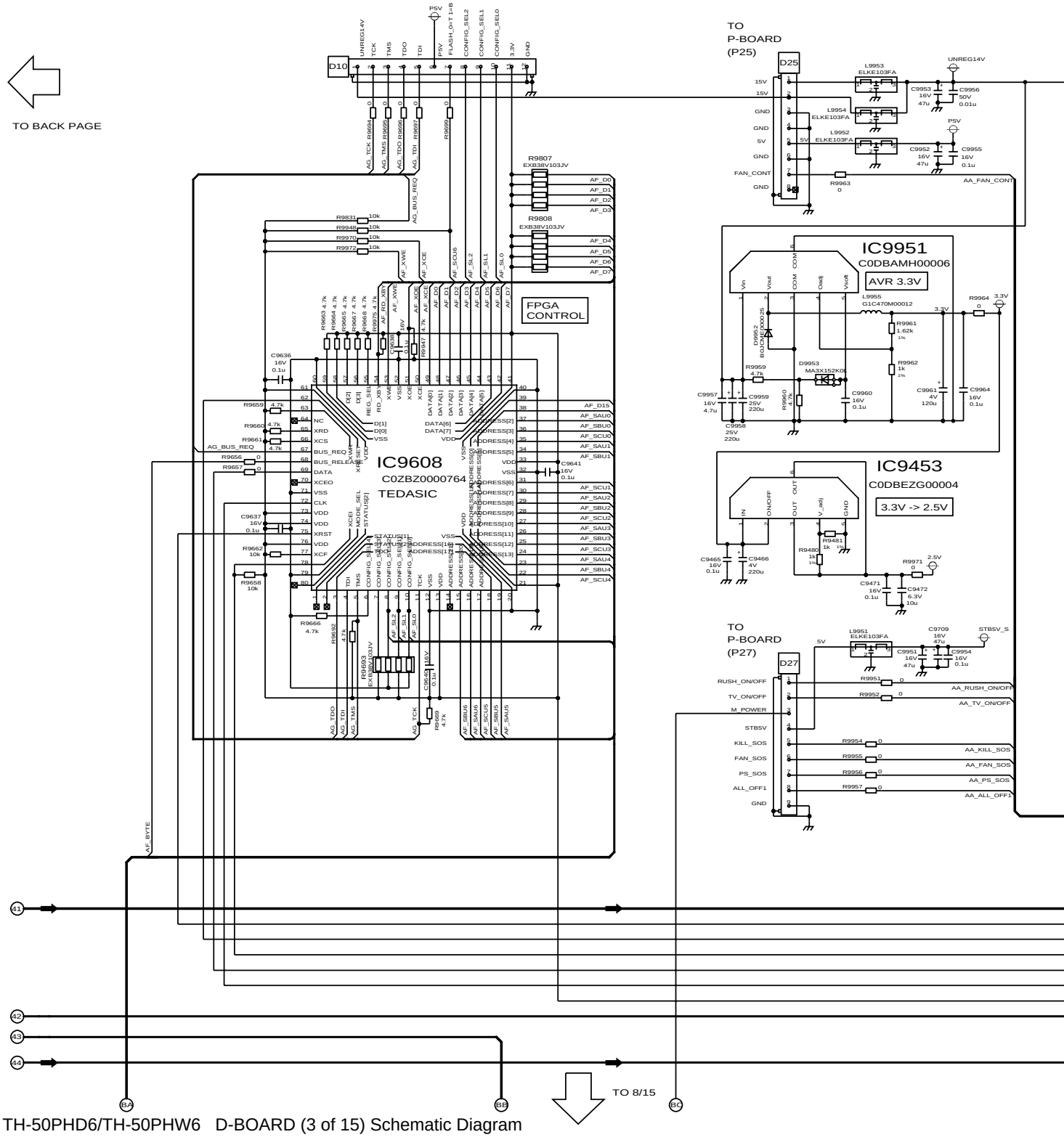
14.25. D-Board (2 of 15) Schematic Diagram

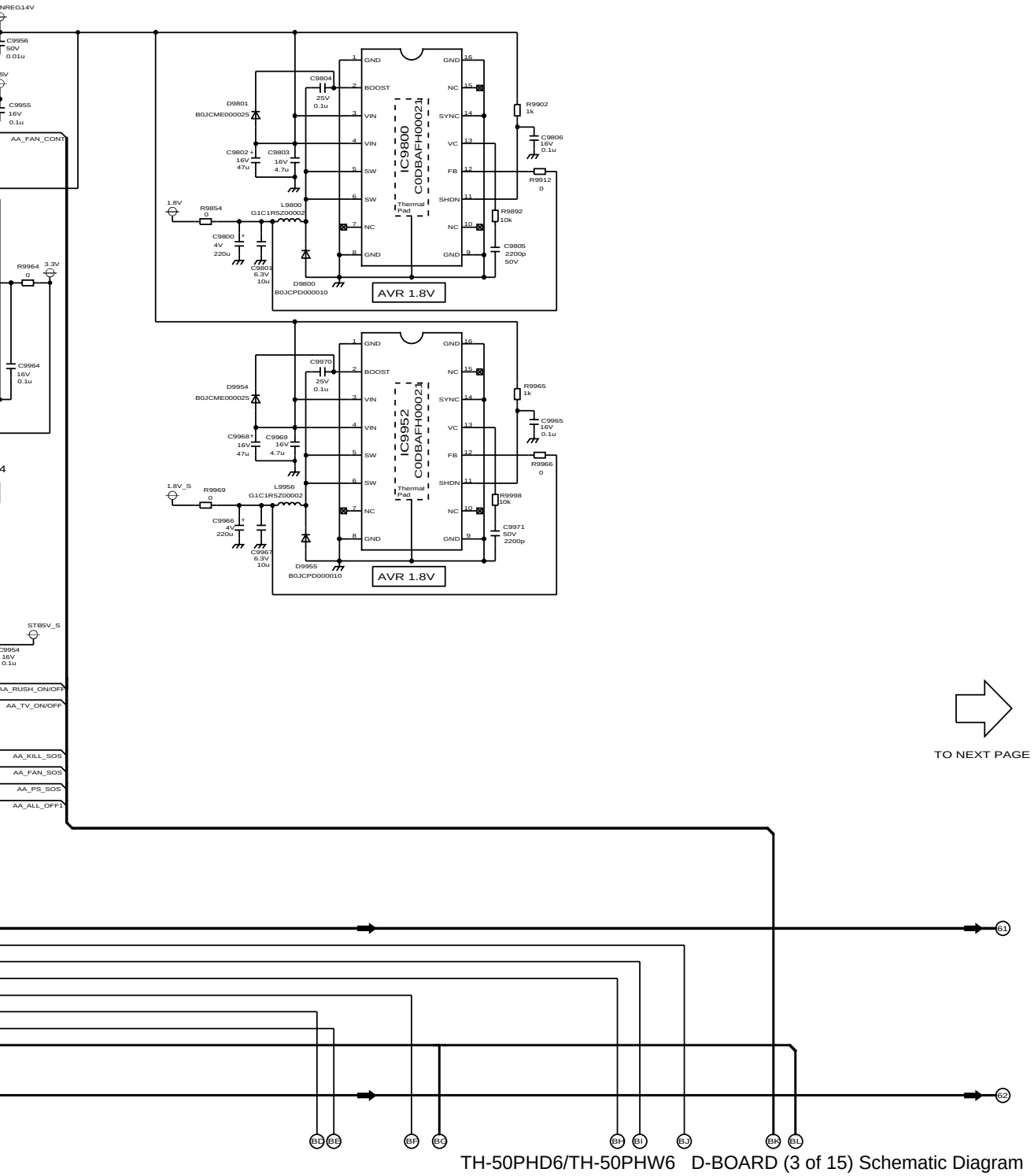



IC9016
C0CBCBD00008
AVR 3.3V
IC9017
C0CBCBD00008
AVR 3.3V
IC9019
C0FBAD000069
A/D CONVERTER
IC9015
C0JBAZ001992
BUS SW
IC9018
C0JBAZ001992
BUS SW
Q9002
2SD0601A0L
TO NEXT PAGE

14.26. D-Board (3 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (3/15)



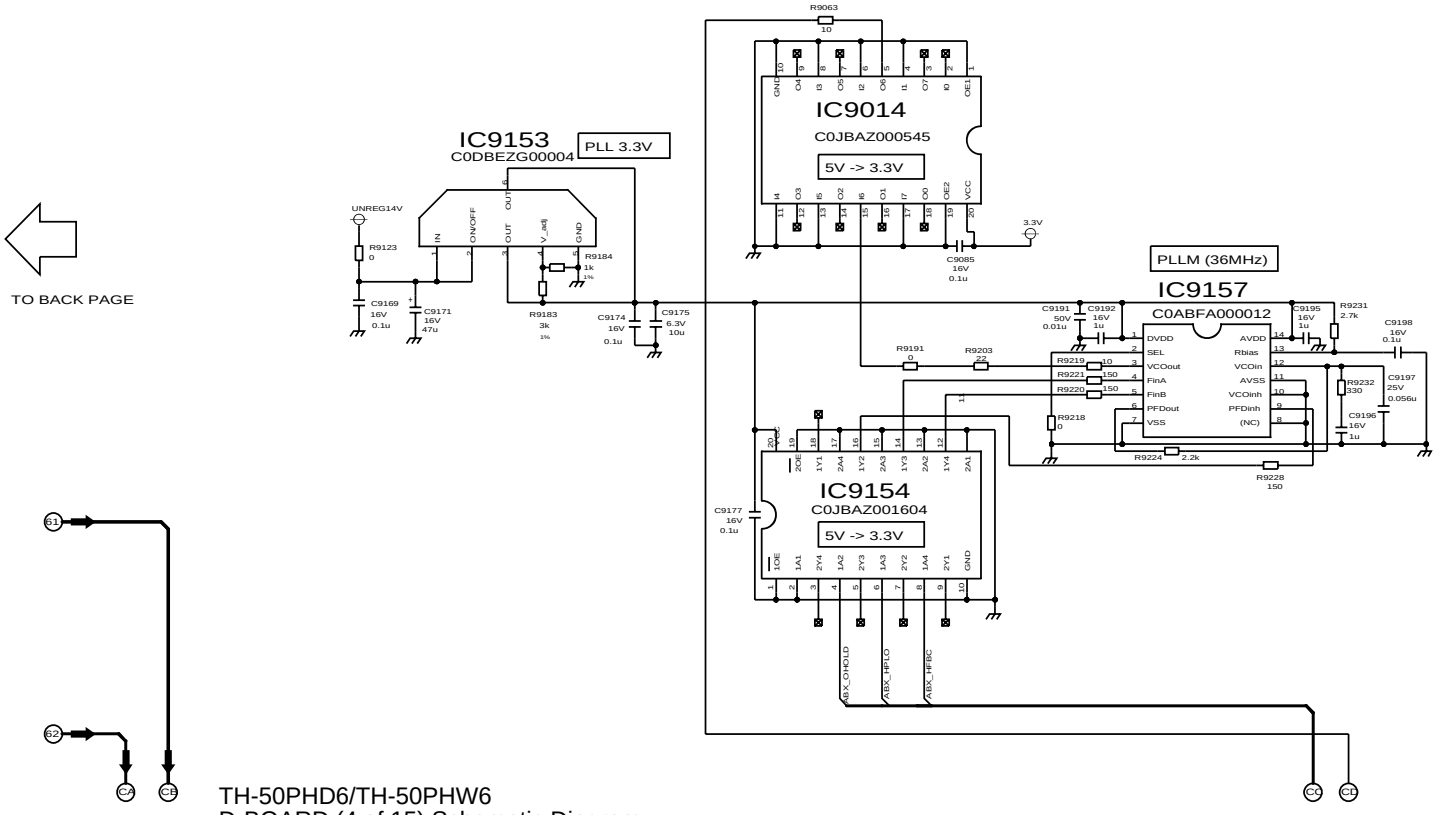


TH-50PHD6/TH-50PHW6 D-BOARD (3 of 15) Schematic Diagram

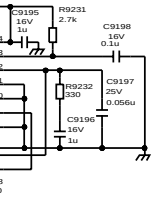
20 21 22 23

14.27. D-Board (4 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (4/15)



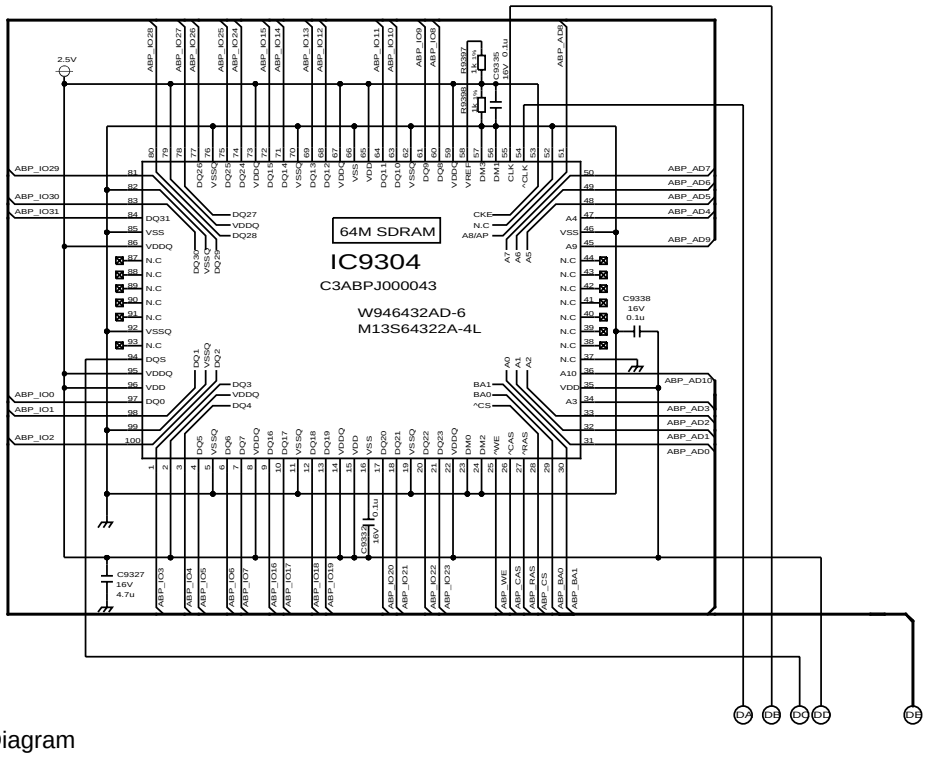
TH-50PHD6/TH-50PHW6
D-BOARD (4 of 15) Schematic Diagram


C9195
16V
1u
R9231
2.7k
C9198
16V
0.1u
R9232
330
C9197
25V
0.056u
C9196
16V
1u

TO 9/15

14.28. D-Board (5 of 15) Schematic Diagram

⚠ D-BOARD TXN/D10QMS (5/15)



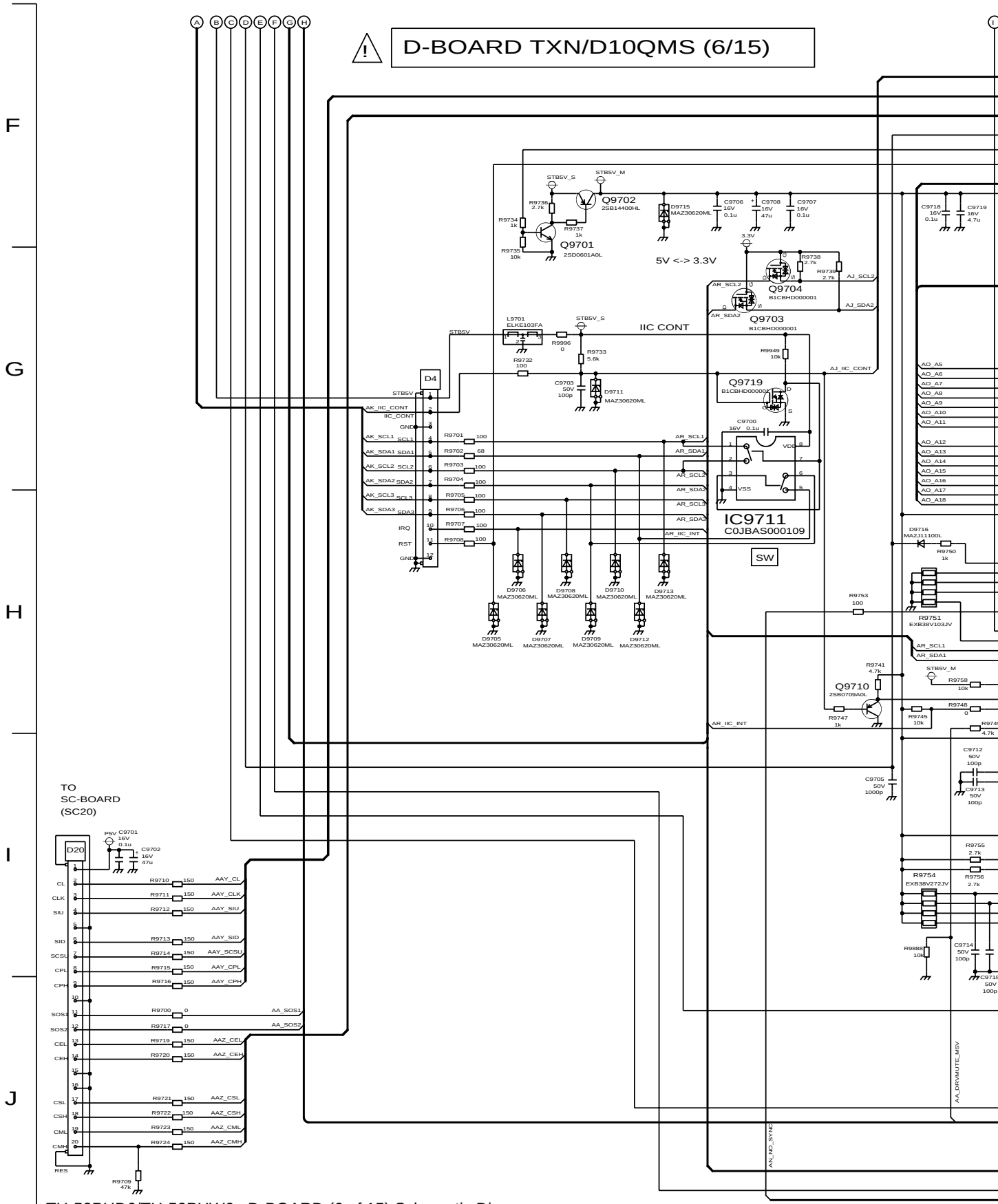
TH-50PHD6/TH-50PHW6
D-BOARD (5 of 15) Schematic Diagram

46 47 48 49

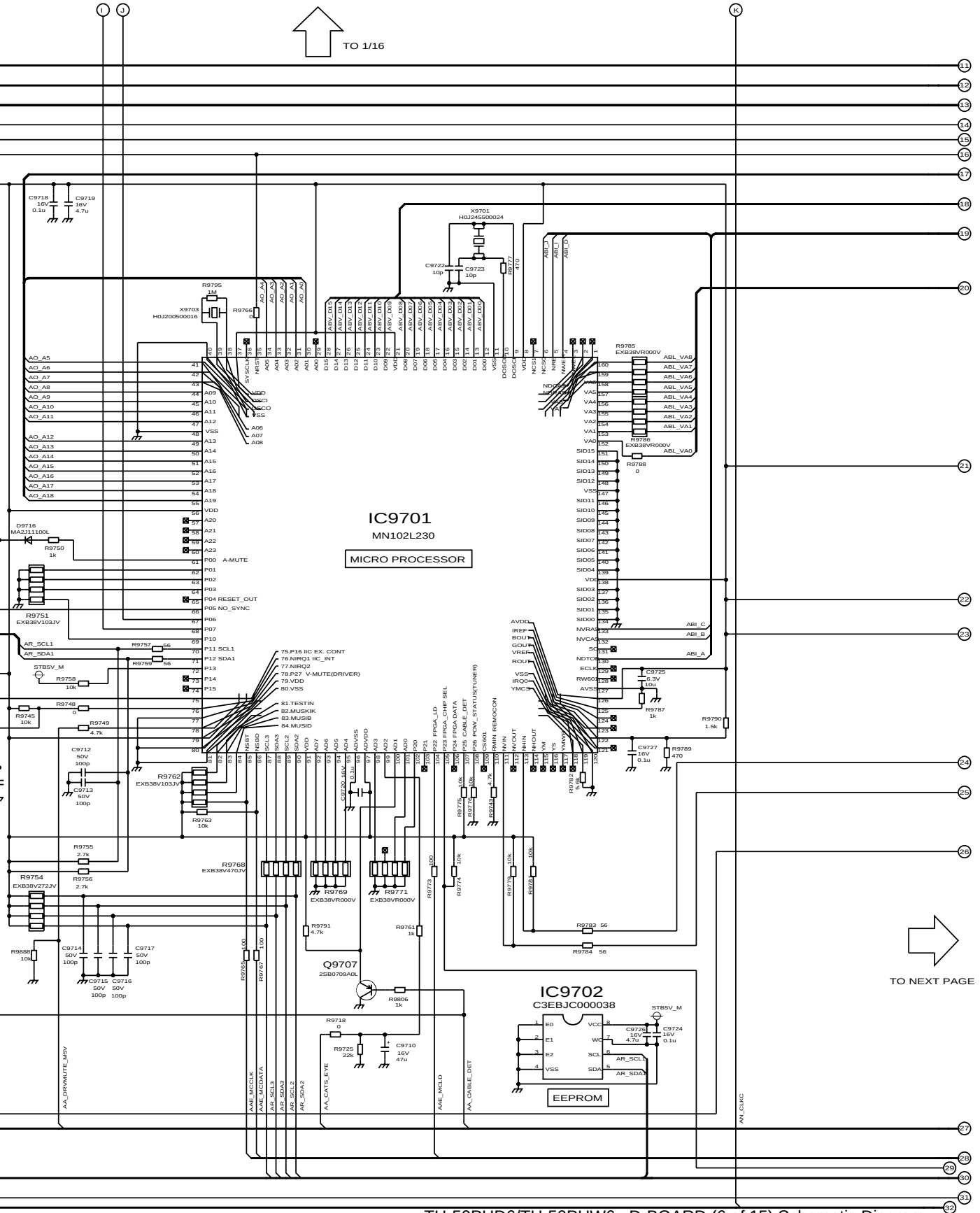
TO 12/15

50 51 52 53

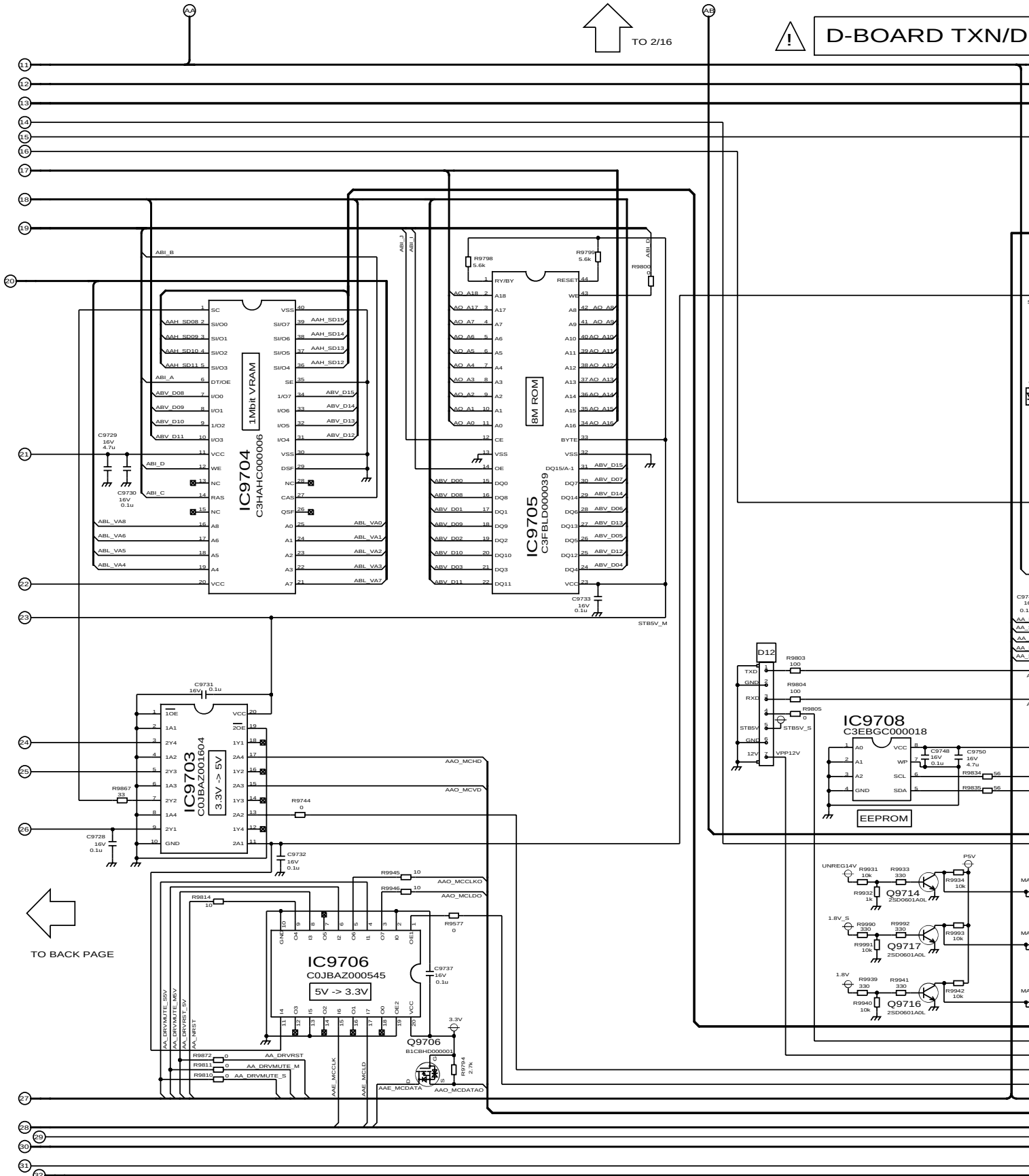
14.29. D-Board (6 of 15) Schematic Diagram

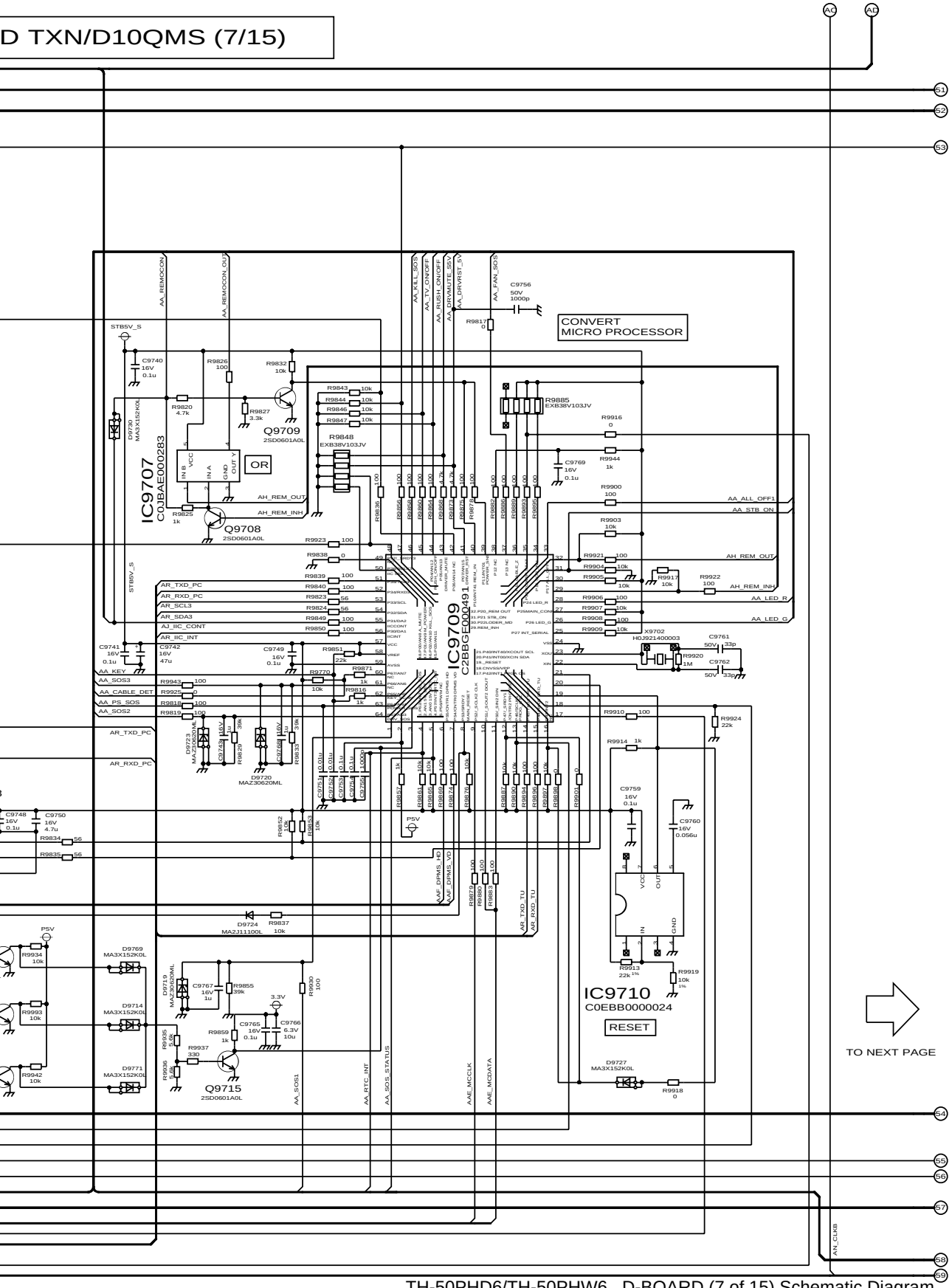


TH-50PHD6/TH-50PHW6 D-BOARD (6 of 15) Schematic Diagram

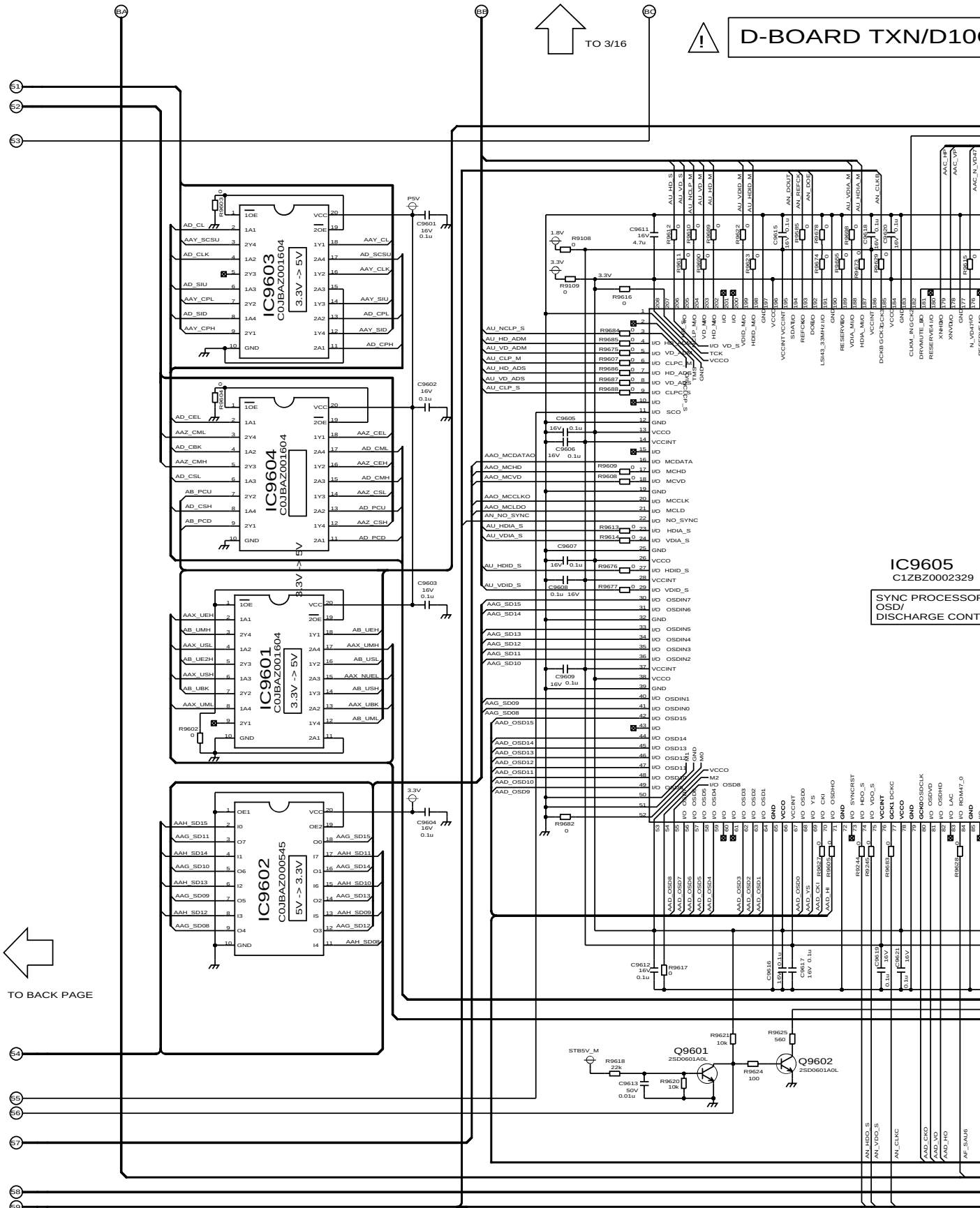

TO 1/16
IC9701
MN102L230
MICRO PROCESSOR
IC9702
C3EBJC000038
EEPROM
Q9707
2SB0709A0L
TO NEXT PAGE

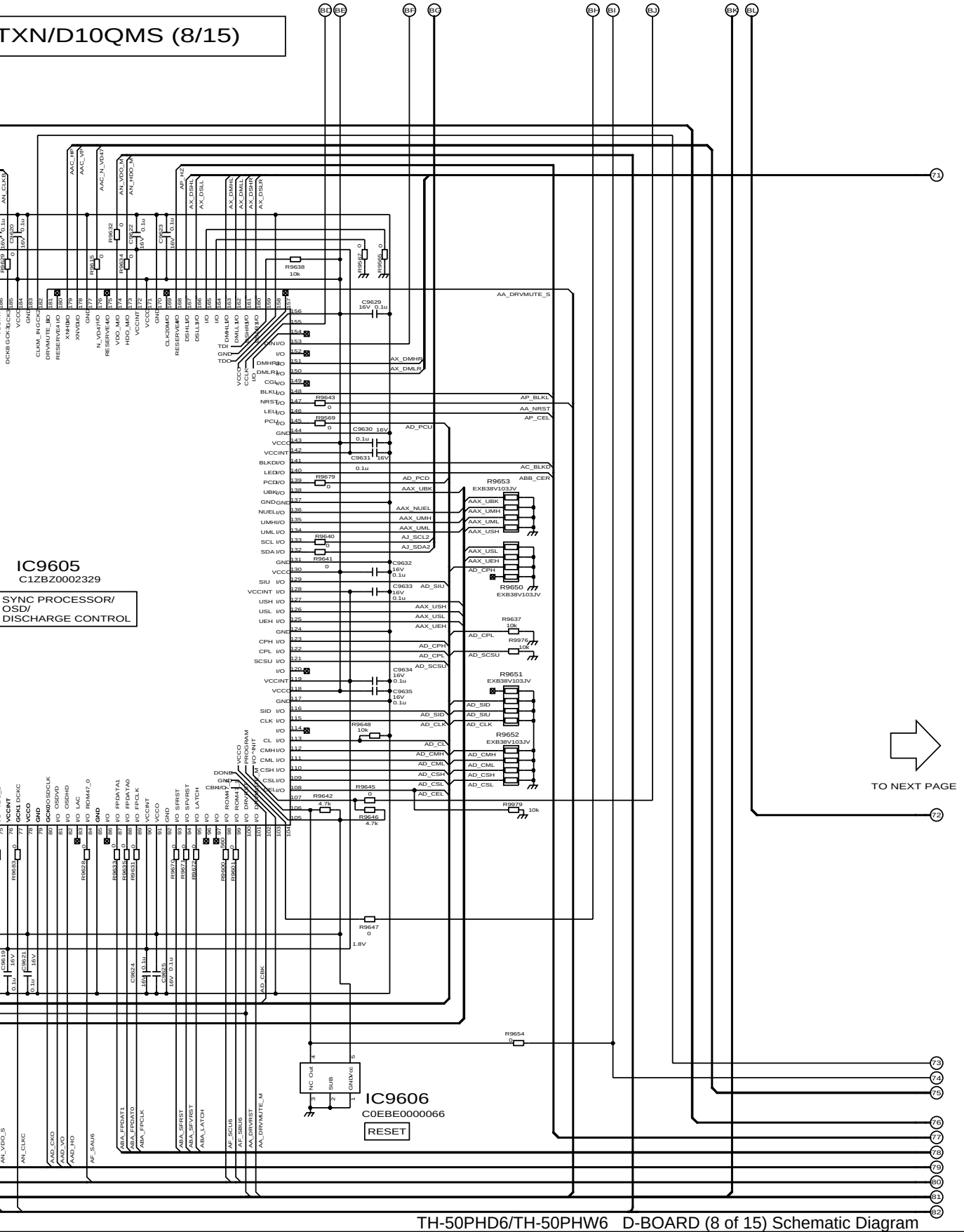
14.30. D-Board (7 of 15) Schematic Diagram



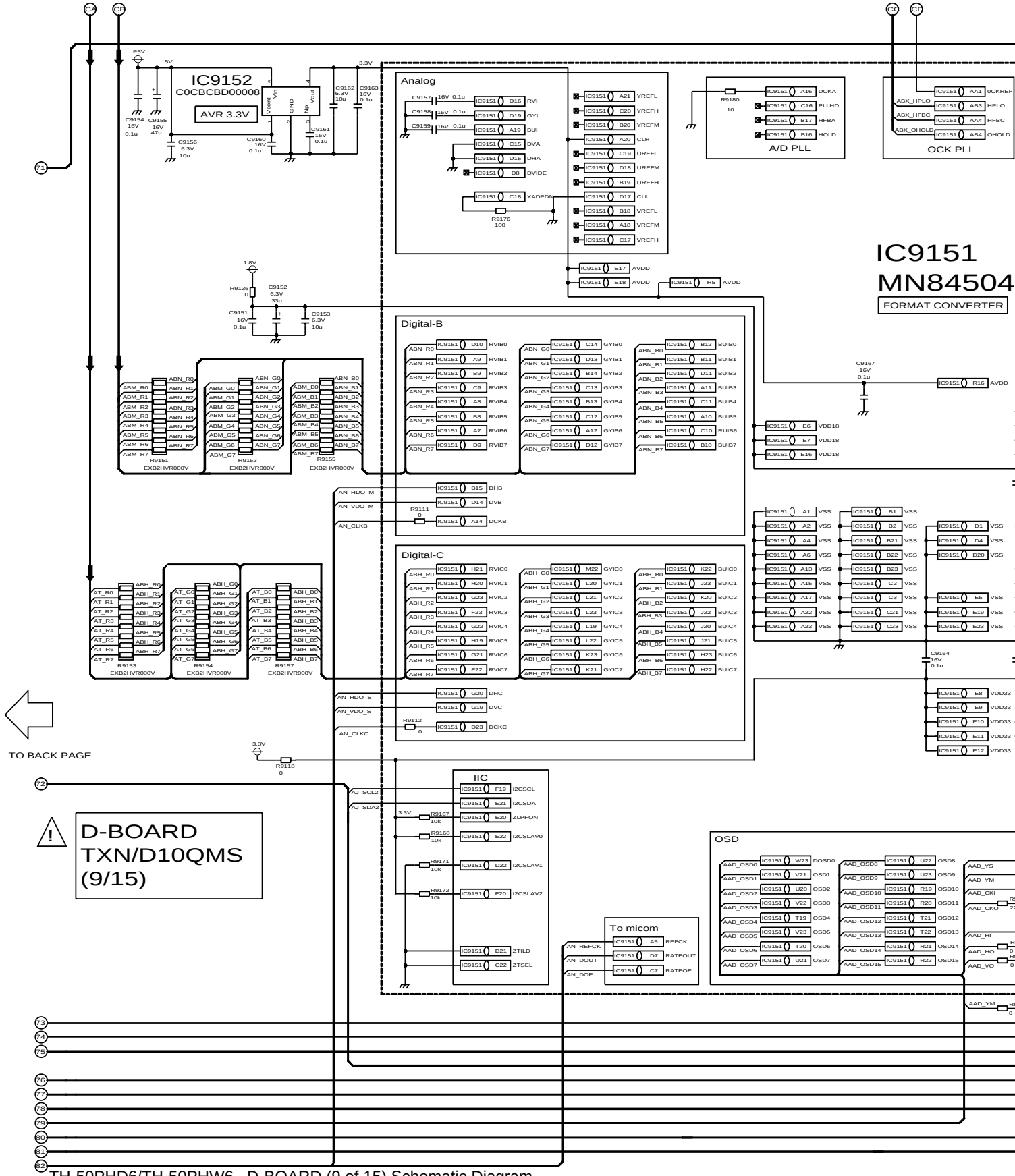

CONVERT
MICRO PROCESSOR
IC9707
C0JBAE000283
OR
IC9709
C2BBGF000491
IC9710
C0EBB0000024
RESET
TO NEXT PAGE
STB5V_S
P5V
3.3V
AA_REMOCON
AA_REMOCON_OUT
AA_KILL_SOS
AA_TV_ON/OFF
AA_RUSH_ON/OFF
AA_DRVMUTE_5SV
AA_DRVRST_5V
AA_FAN_SOS
AA_ALL_OFF1
AA_STB_ON
AH_REM_OUT
AH_REM_INH
AA_LED_R
AA_LED_G
AR_TXD_PC
AR_RXD_PC
AR_SCL3
AR_SDA3
AJ_IIC_CONT
AR_IIC_INT
AA_KEY
AA_SOS3
AA_CABLE_DET
AA_PS_SOS
AA_SOS2
AAF_DPMS_HD
AAF_DPMS_VD
AR_TXD_TU
AR_RXD_TU
AA_SOS1
AA_RTC_INT
AA_SOS_STATUS
AAE_MCCLK
AAE_MCDATA
AA_CLKB
Q9709
2SD0601A0L
Q9708
2SD0601A0L
Q9715
2SD0601A0L
X9702
H0J921400003

14.31. D-Board (8 of 15) Schematic Diagram



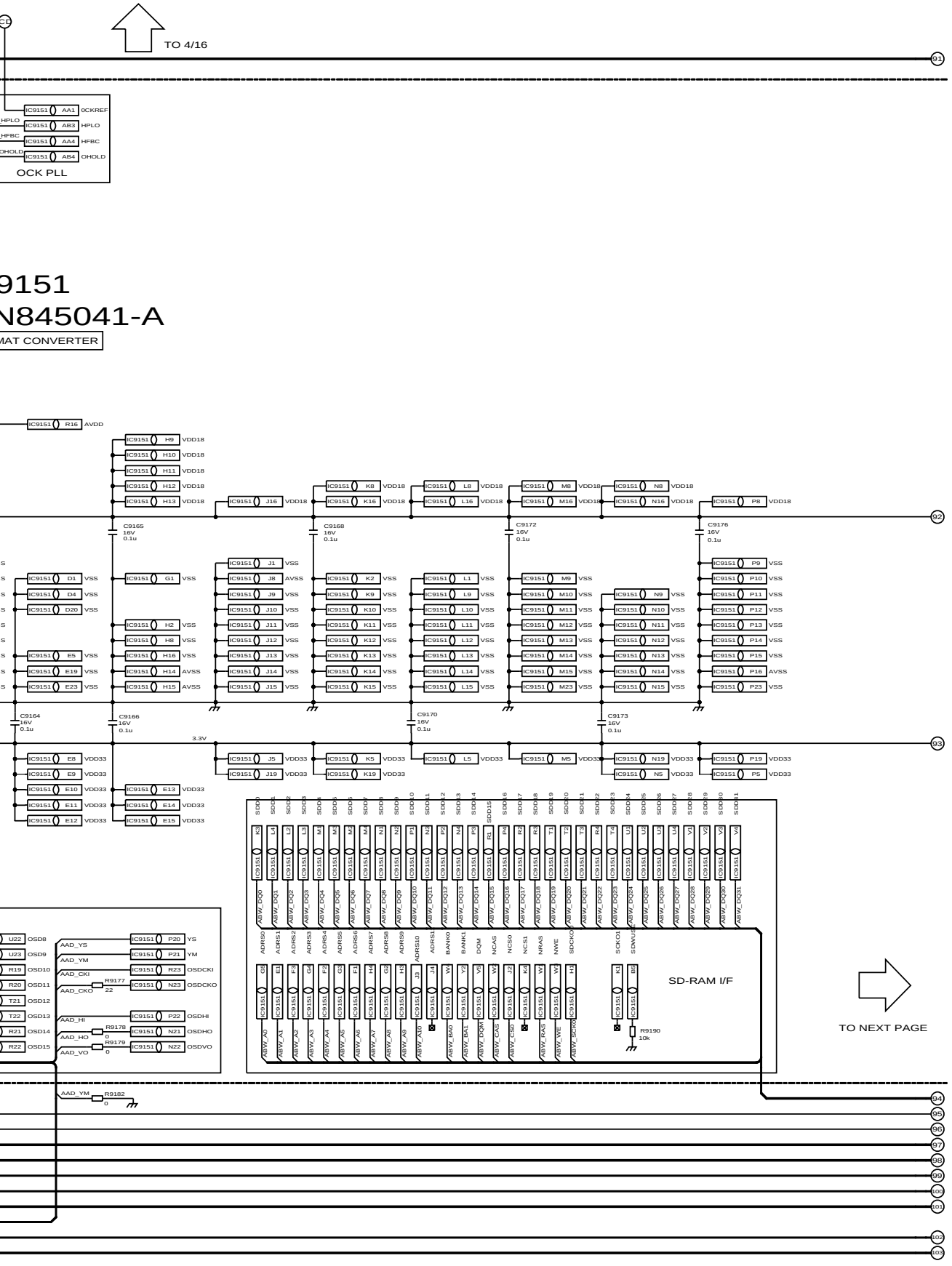

TXN/D10QMS (8/15)
IC9605
C1ZBZ0002329
SYNC PROCESSOR/
OSD/
DISCHARGE CONTROL
IC9606
C0EBE0000066
RESET
TO NEXT PAGE

14.32. D-Board (9 of 15) Schematic Diagram



TH-50PHD6/TH-50PHW6 D-BOARD (9 of 15) Schematic Diagram

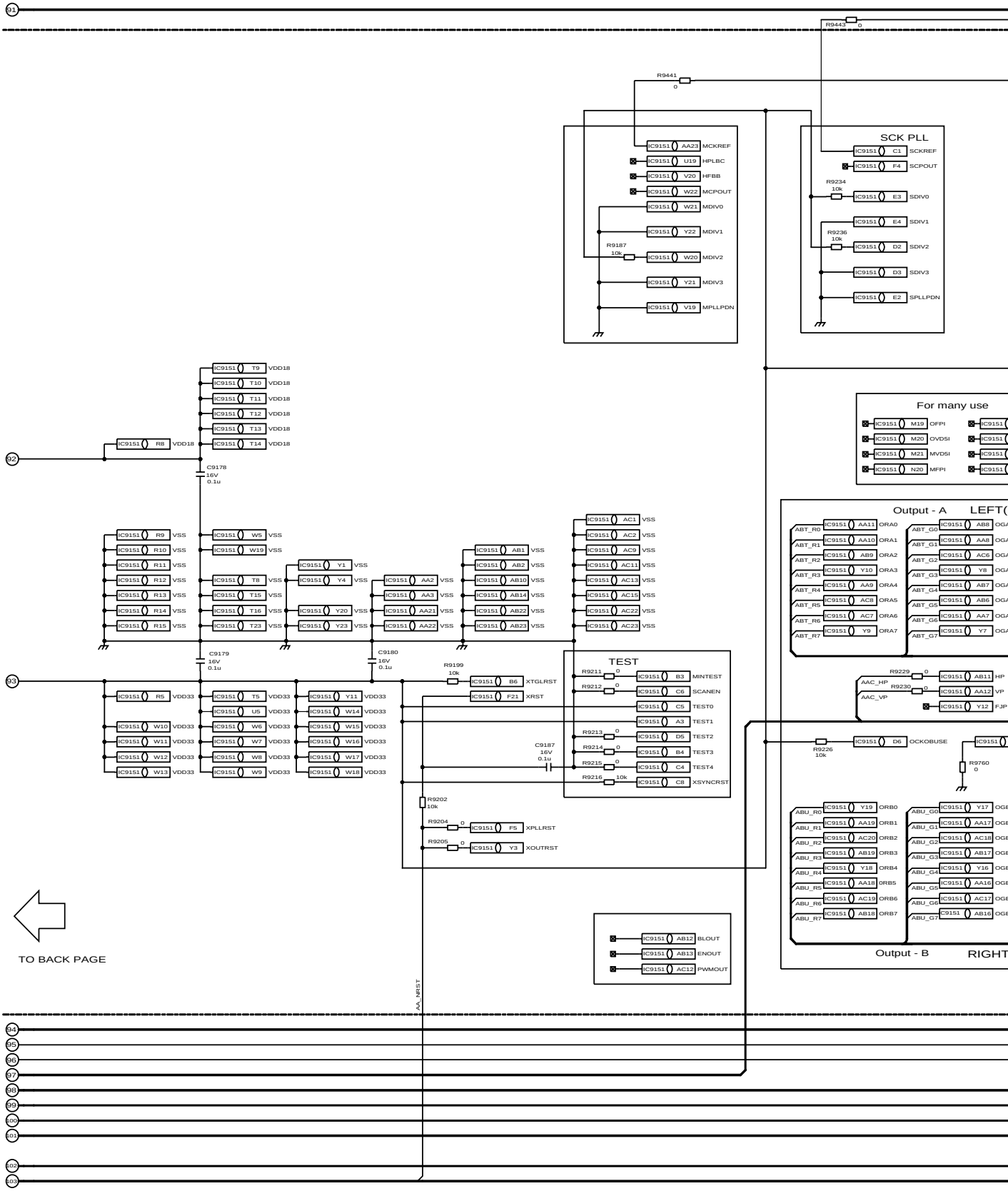
23 24 25 26 27



TH-50PHD6/TH-50PHW6 D-BOARD (9 of 15) Schematic Diagram

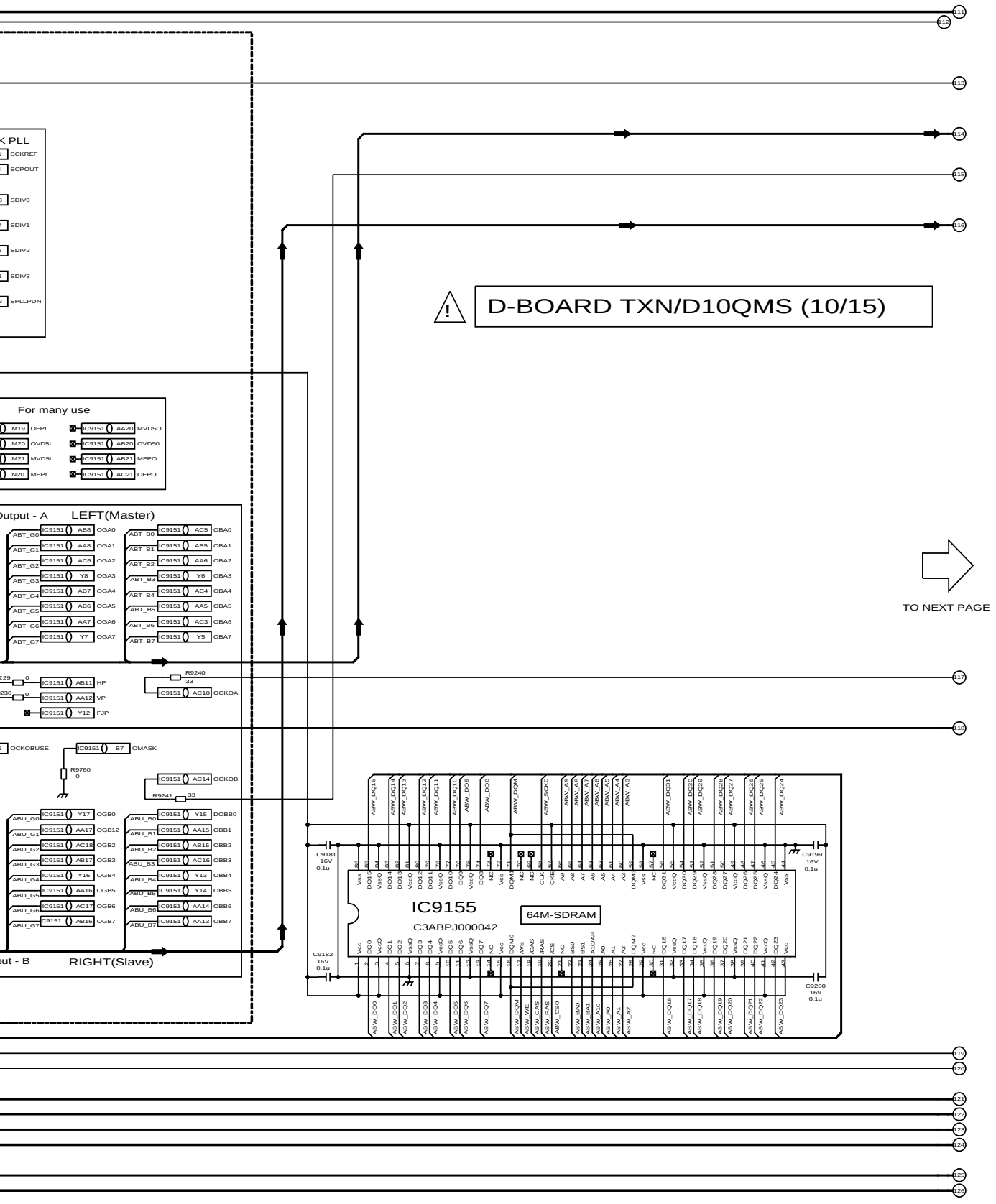
27 28 29 30

14.33. D-Board (10 of 15) Schematic Diagram

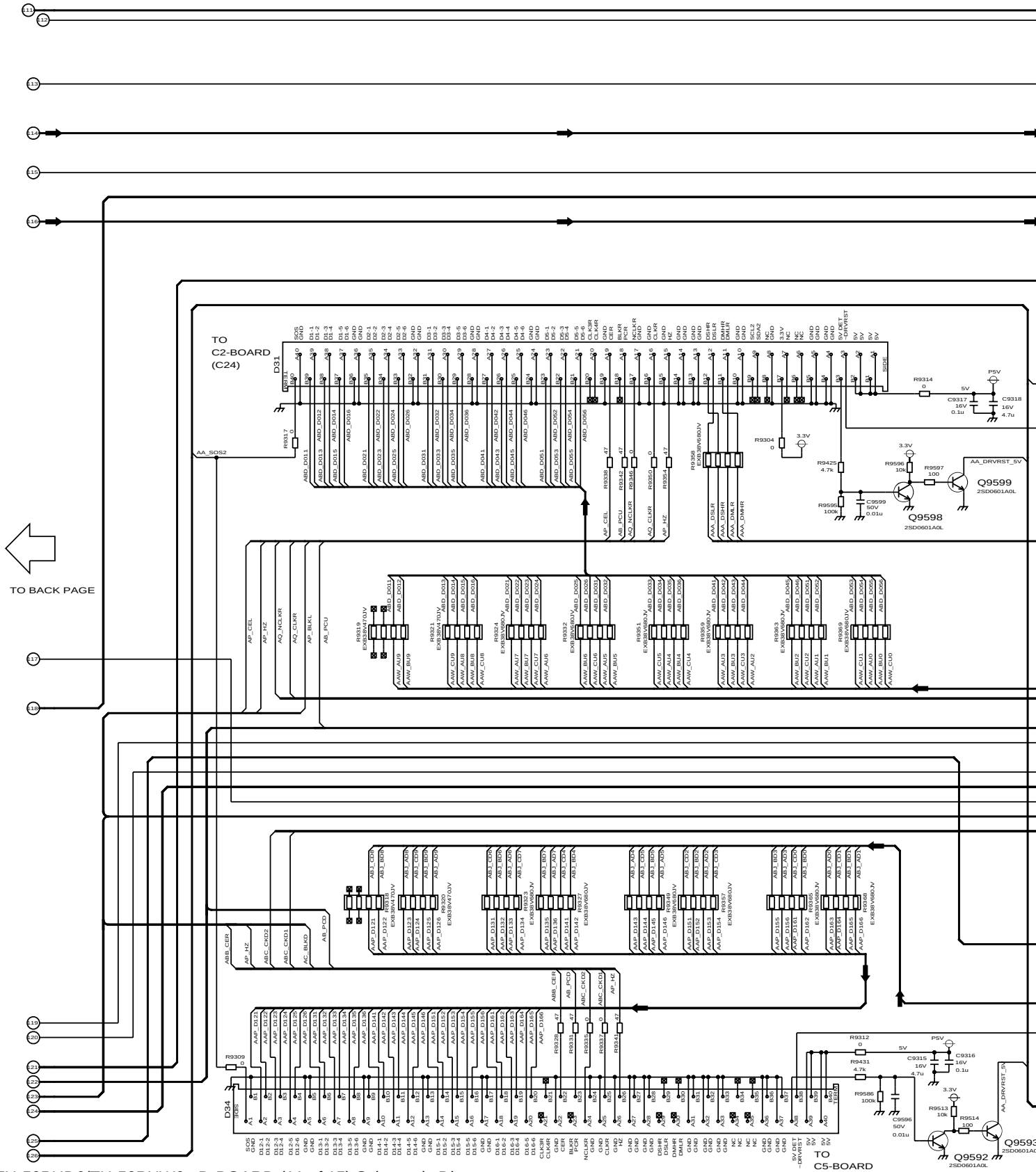


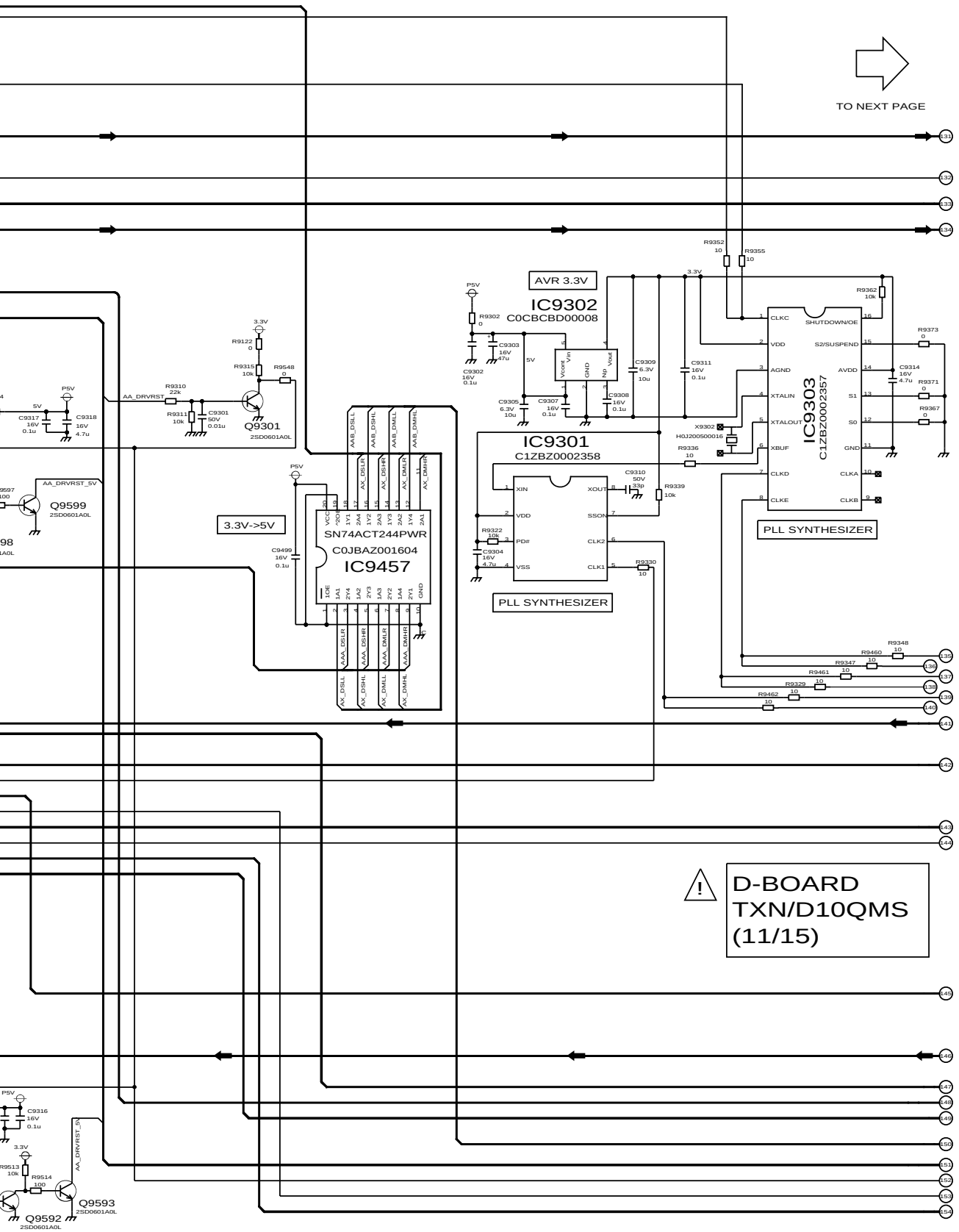
TH-50PHD6/TH-50PHW6 D-BOARD (10 of 15) Schematic Diagram

31 32 33 34


D-BOARD TXN/D10QMS (10/15)
TO NEXT PAGE
IC9155
C3ABPJ000042
64M-SDRAM
LEFT(Master)
RIGHT(Slave)
For many use

14.34. D-Board (11 of 15) Schematic Diagram

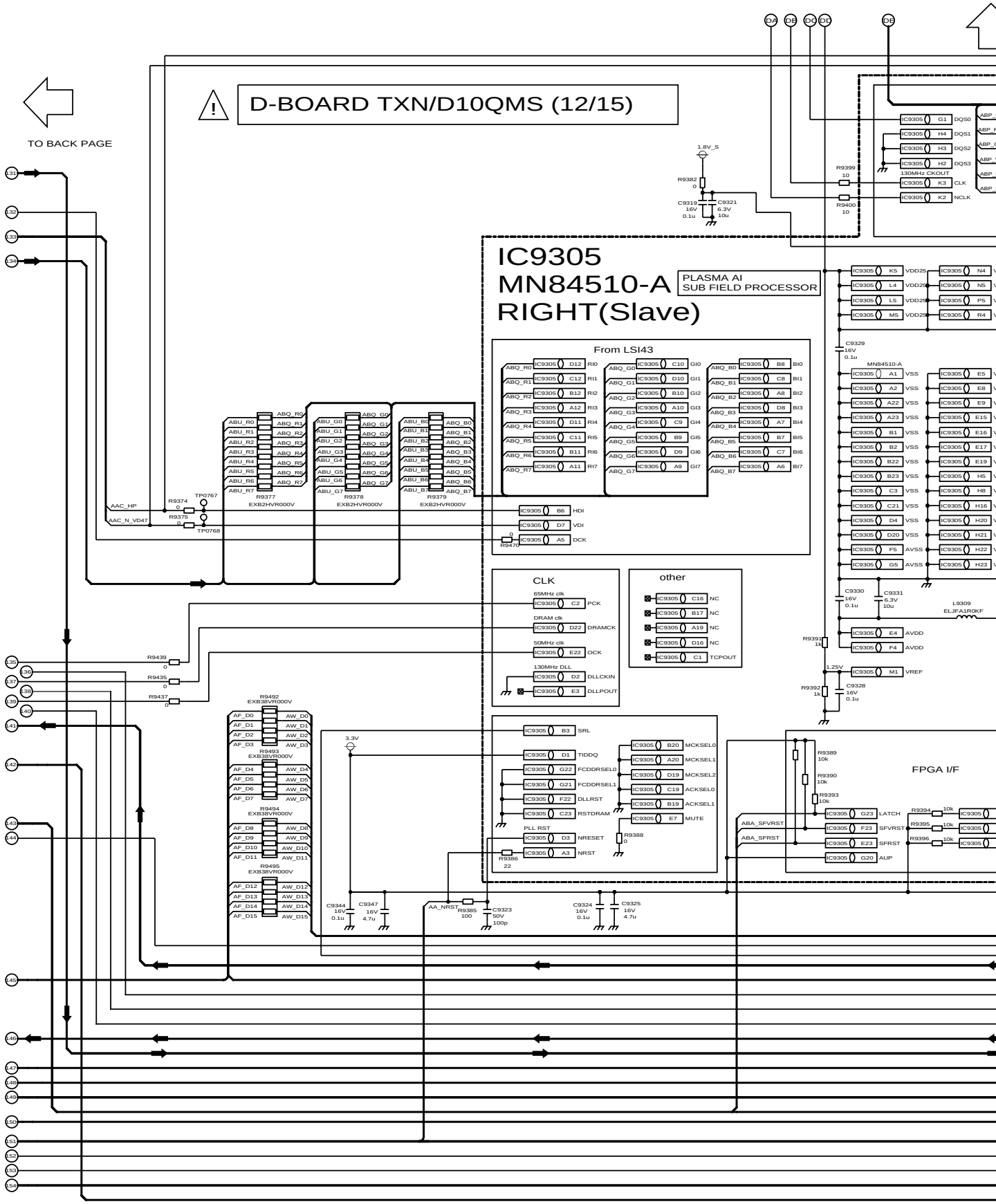


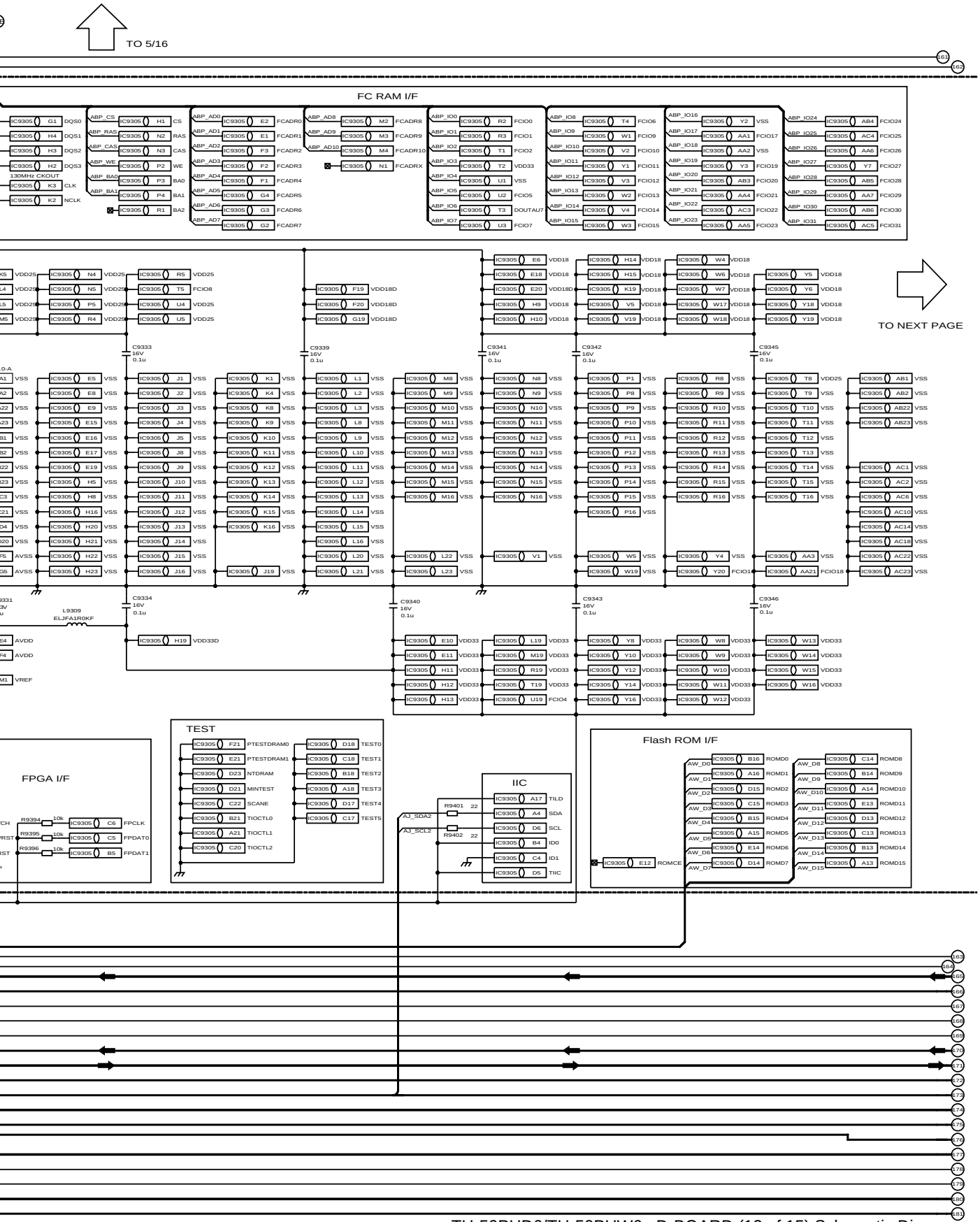


TH-50PHD6/TH-50PHW6 D-BOARD (11 of 15) Schematic Diagram

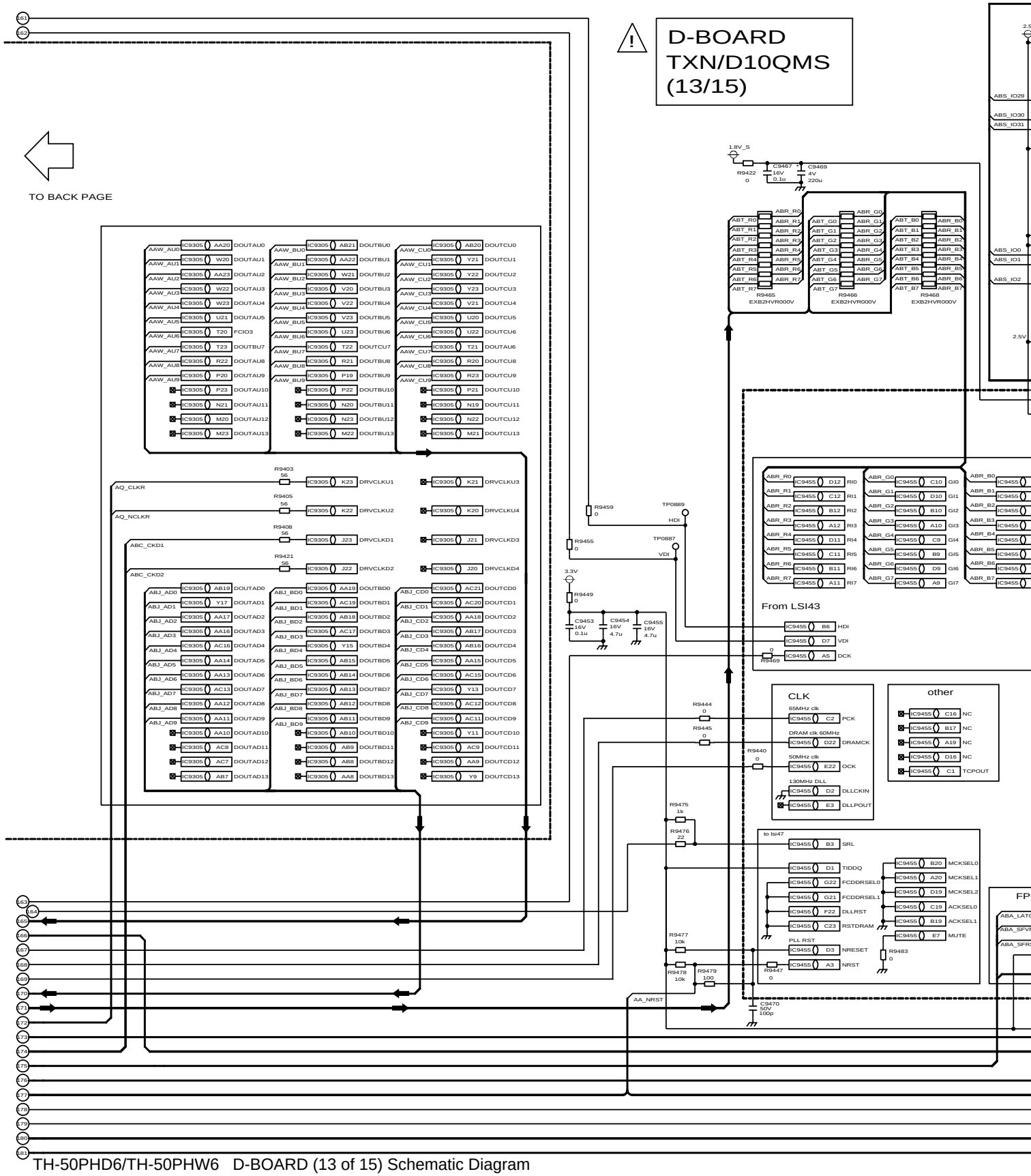
42 43 44 45

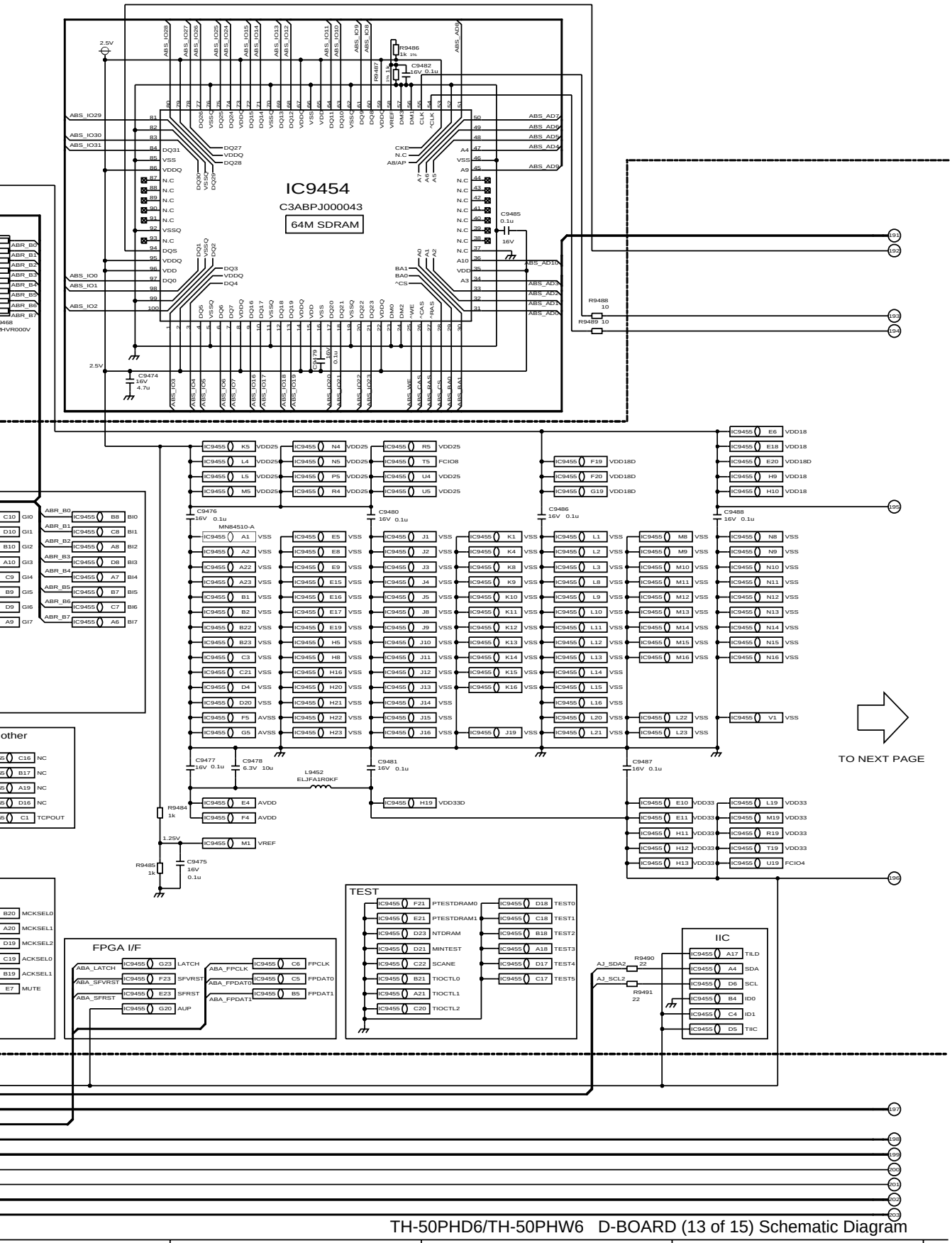
14.35. D-Board (12 of 15) Schematic Diagram




TO 5/16
FC RAM I/F
TO NEXT PAGE
TEST
FPGA I/F
IIC
Flash ROM I/F

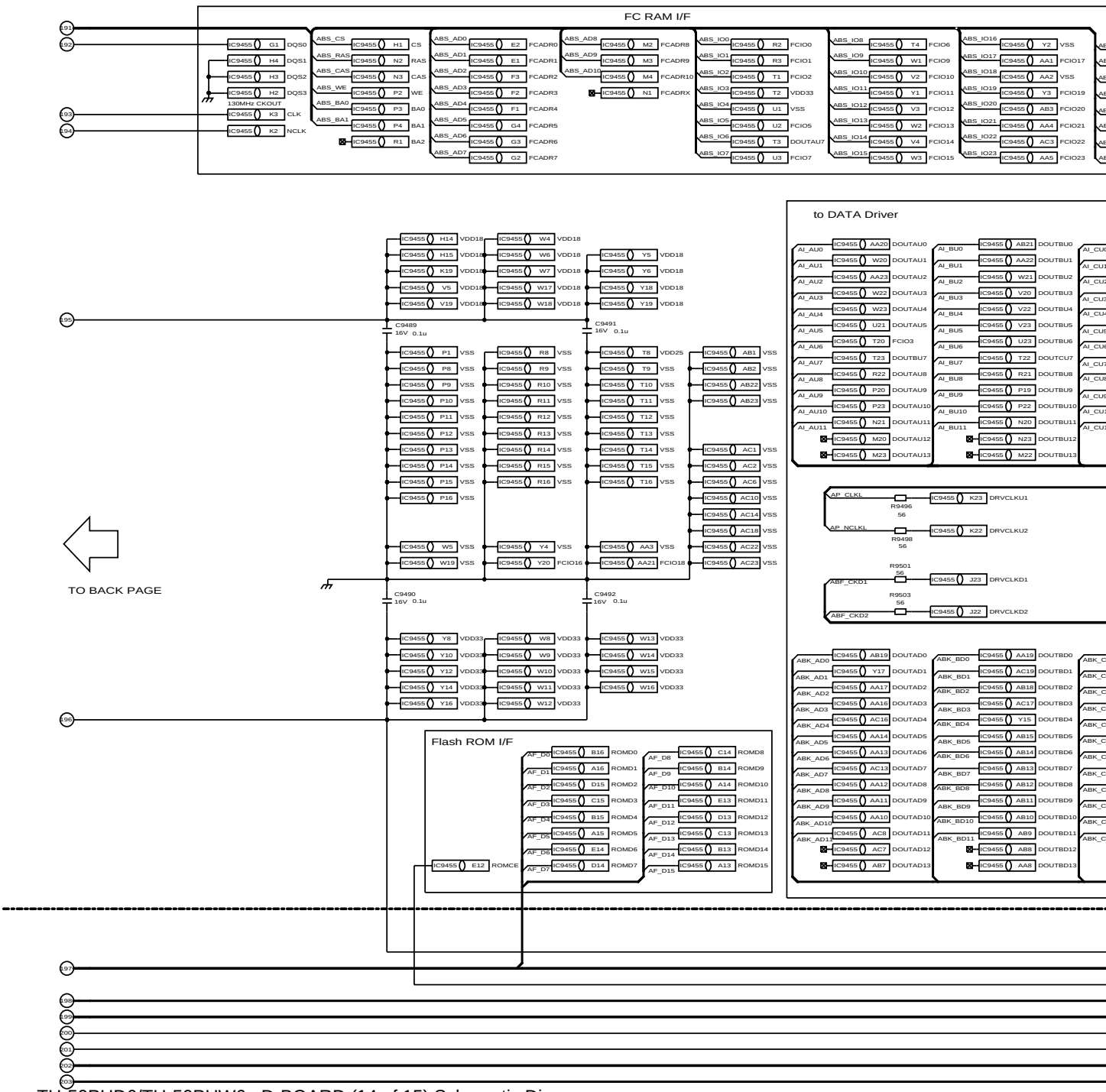
14.36. D-Board (13 of 15) Schematic Diagram

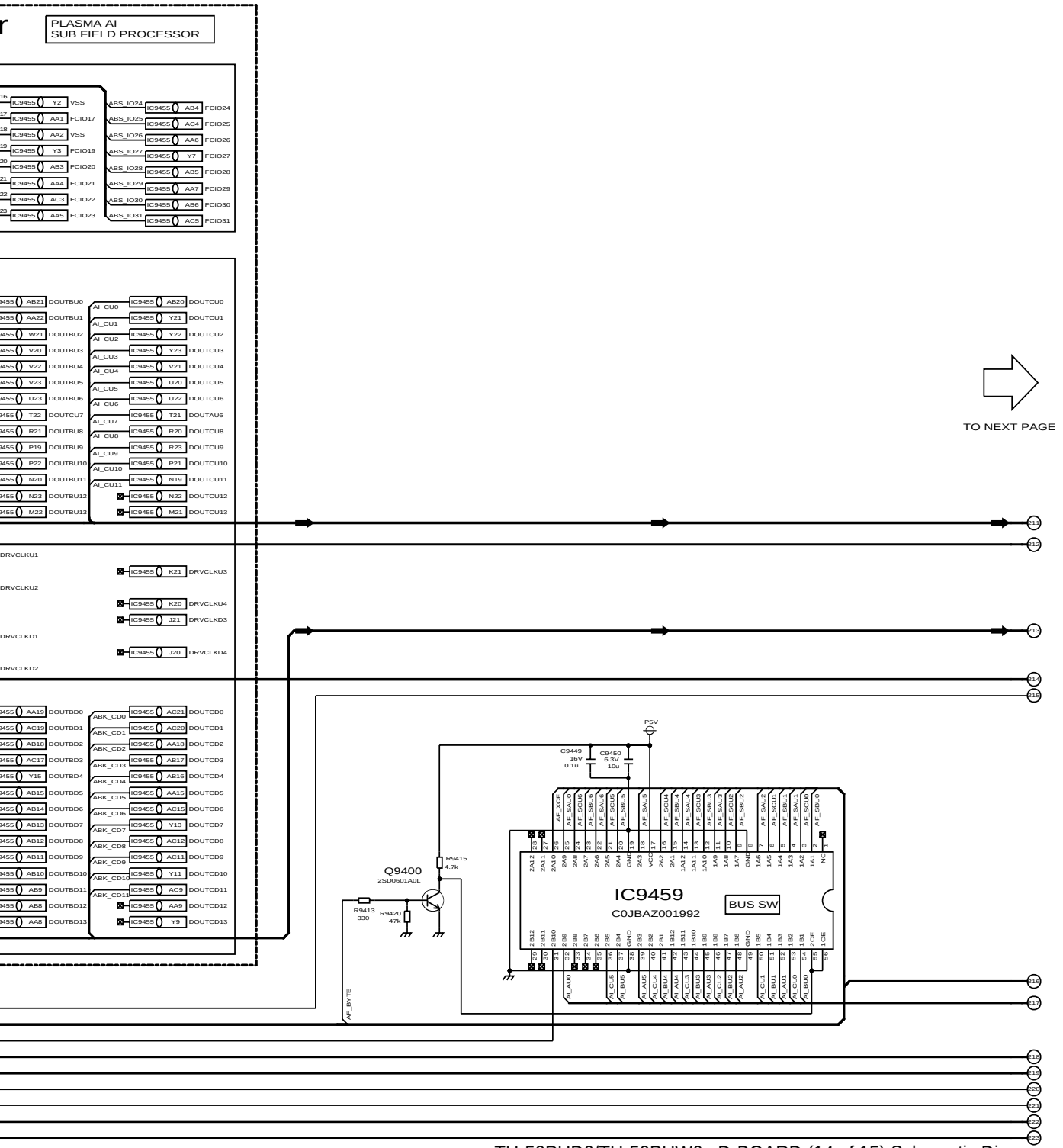



IC9454
C3ABPJ000043
64M SDRAM
2.5V
R9486
1k
C9482
16V 0.1u
C9485
0.1u
16V
R9488
10
R9489
10
C9474
16V
4.7u
C9479
0.1u
MN84510-A
C9476
16V 0.1u
C9480
16V 0.1u
C9486
16V 0.1u
C9488
16V 0.1u
C9477
16V 0.1u
C9478
6.3V 10u
L9452
ELJFA1R0KF
C9481
16V 0.1u
C9487
16V 0.1u
R9484
1k
1.25V
R9485
1k
C9475
16V
0.1u
TO NEXT PAGE
TEST
FPGA I/F
IIC
R9490
22
R9491
22

14.37. D-Board (14 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (14/15)



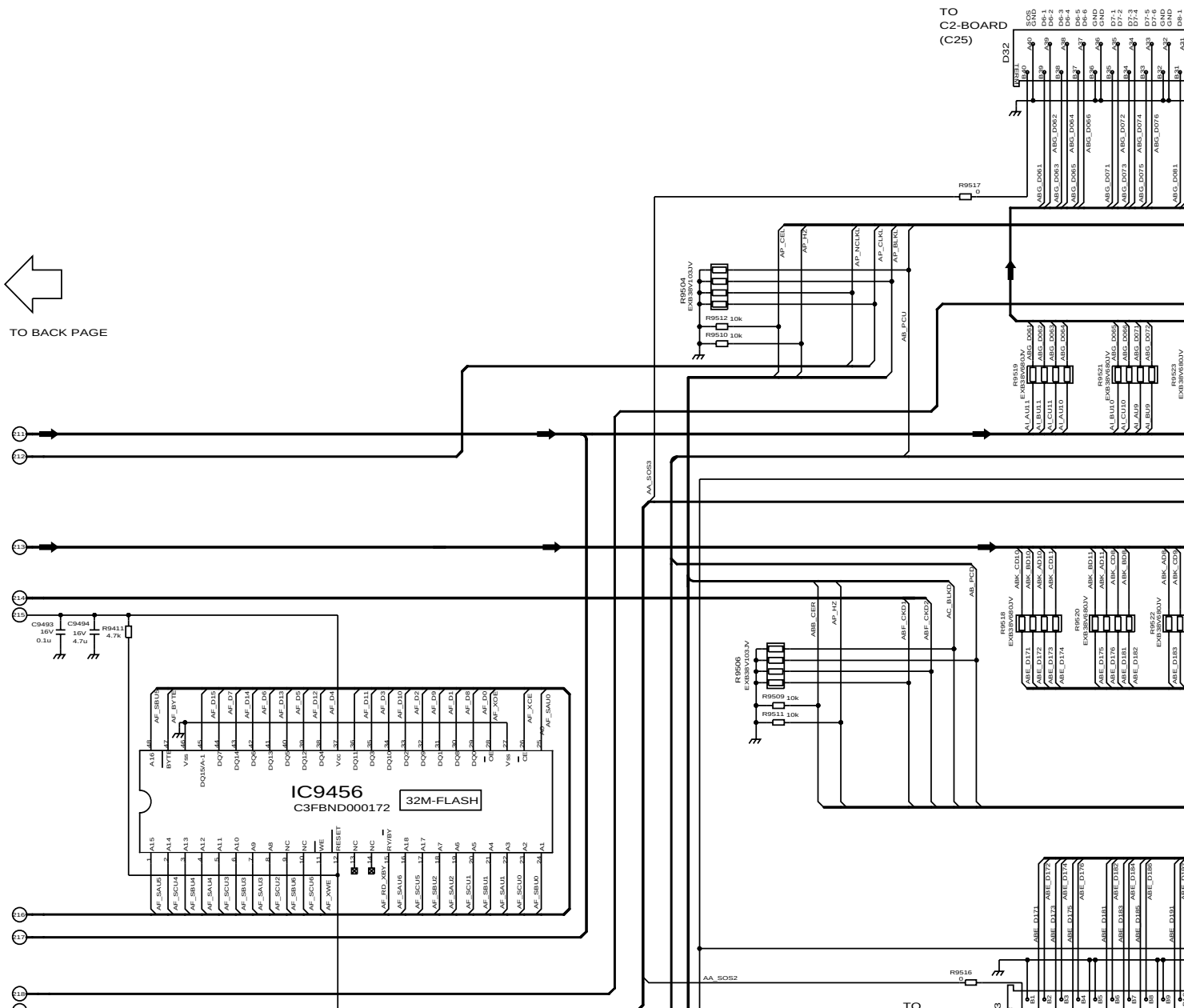


TH-50PHD6/TH-50PHW6 D-BOARD (14 of 15) Schematic Diagram

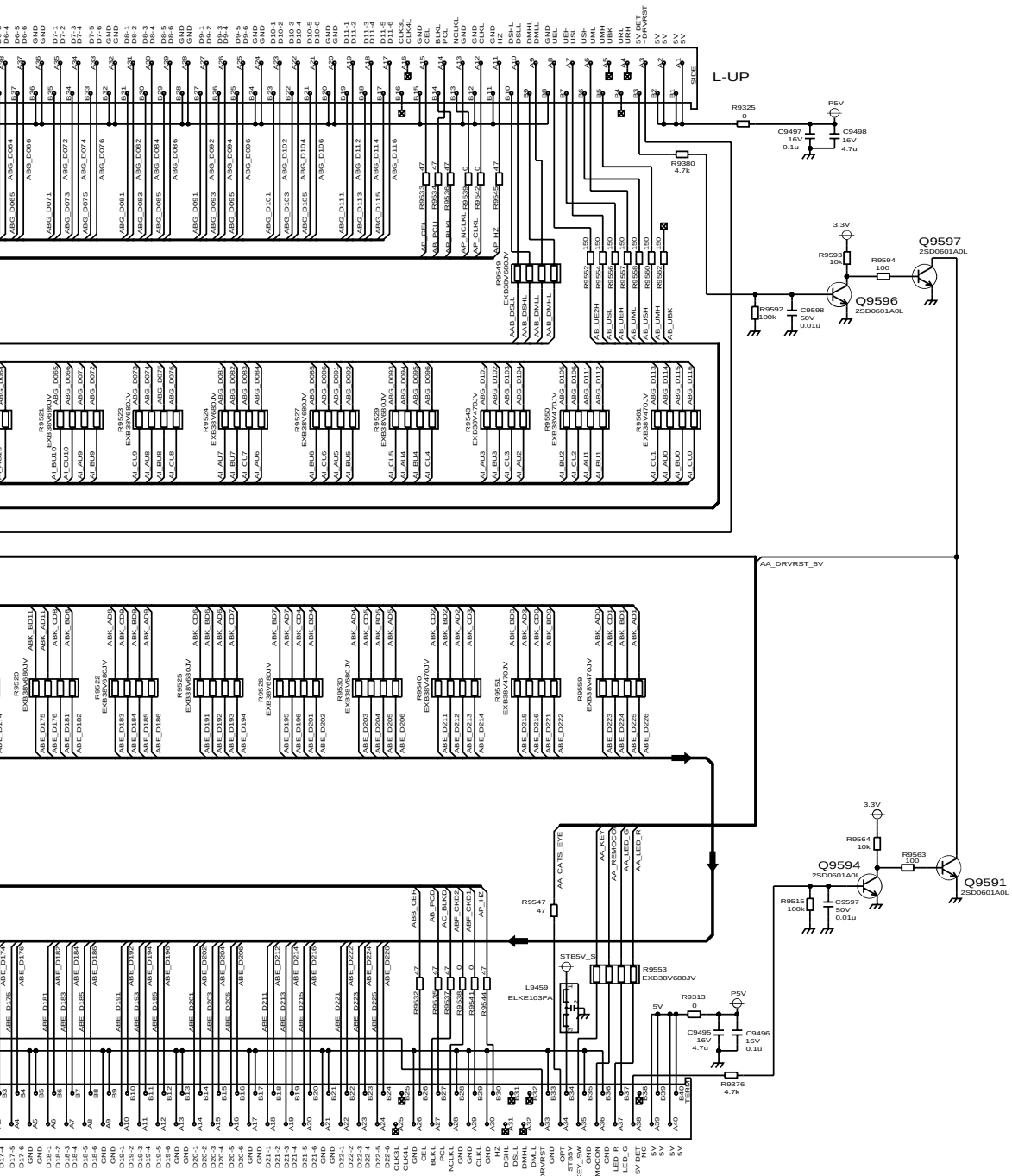
65 66 67 68

14.38. D-Board (15 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (15/15)



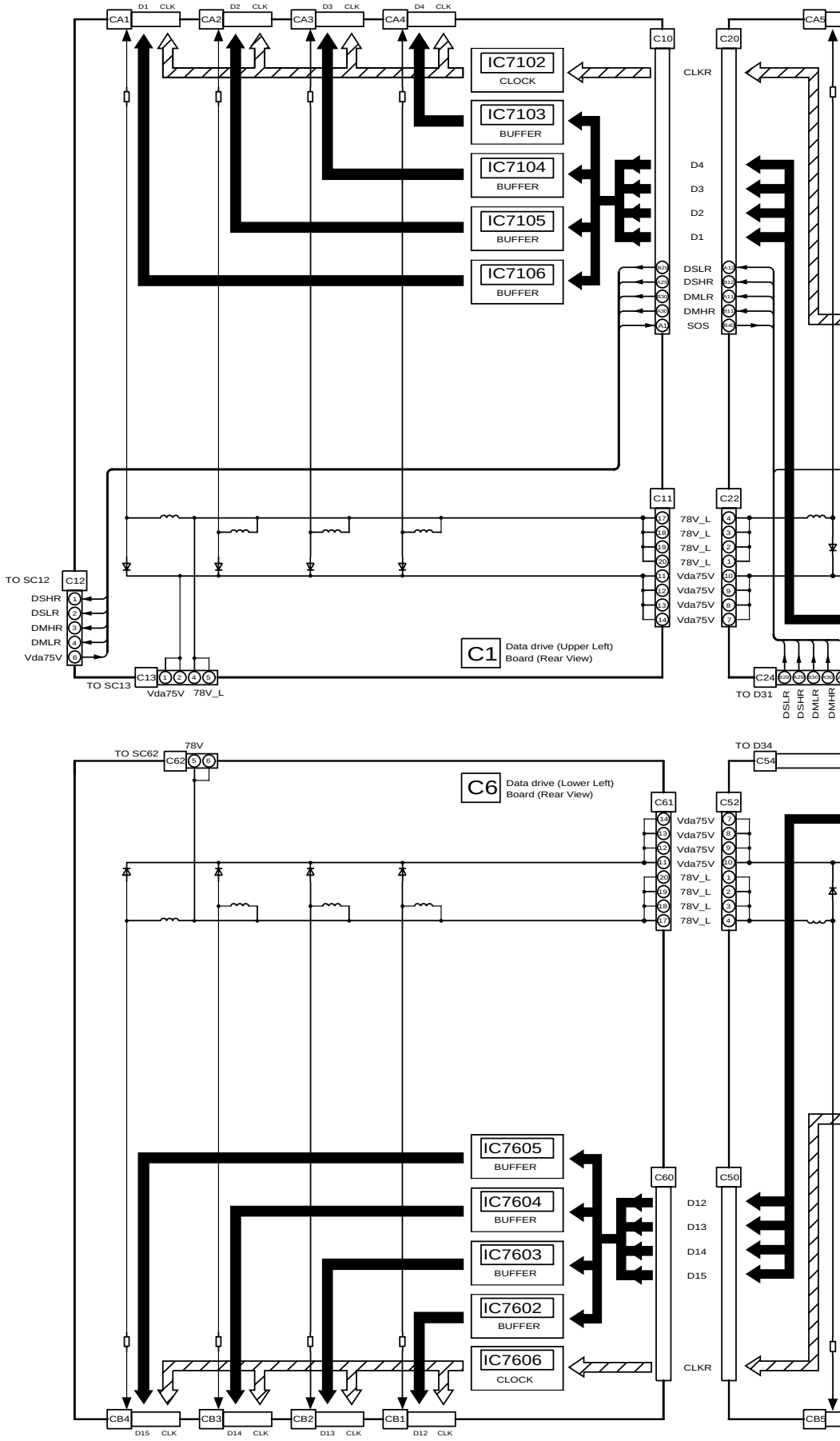
TH-50PHD6/TH-50PHW6 D-BOARD (15 of 15) Schematic Diagram



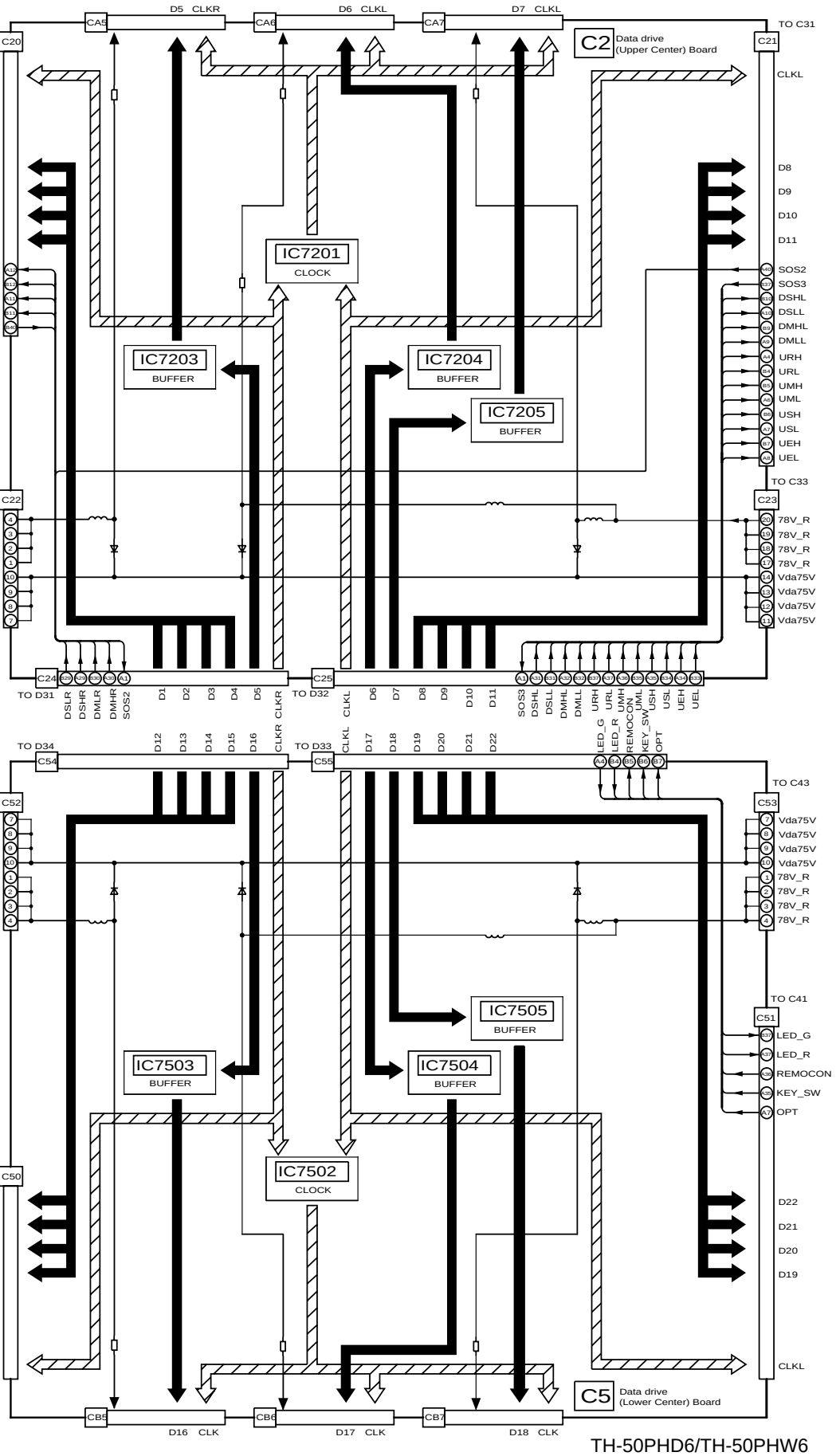
TH-50PHD6/TH-50PHW6 D-BOARD (15 of 15) Schematic Diagram

72	73	74	75

14.39. C1, C2, C3, C4, C5, C6 and V1-Board Block Diagram (1 of 2)

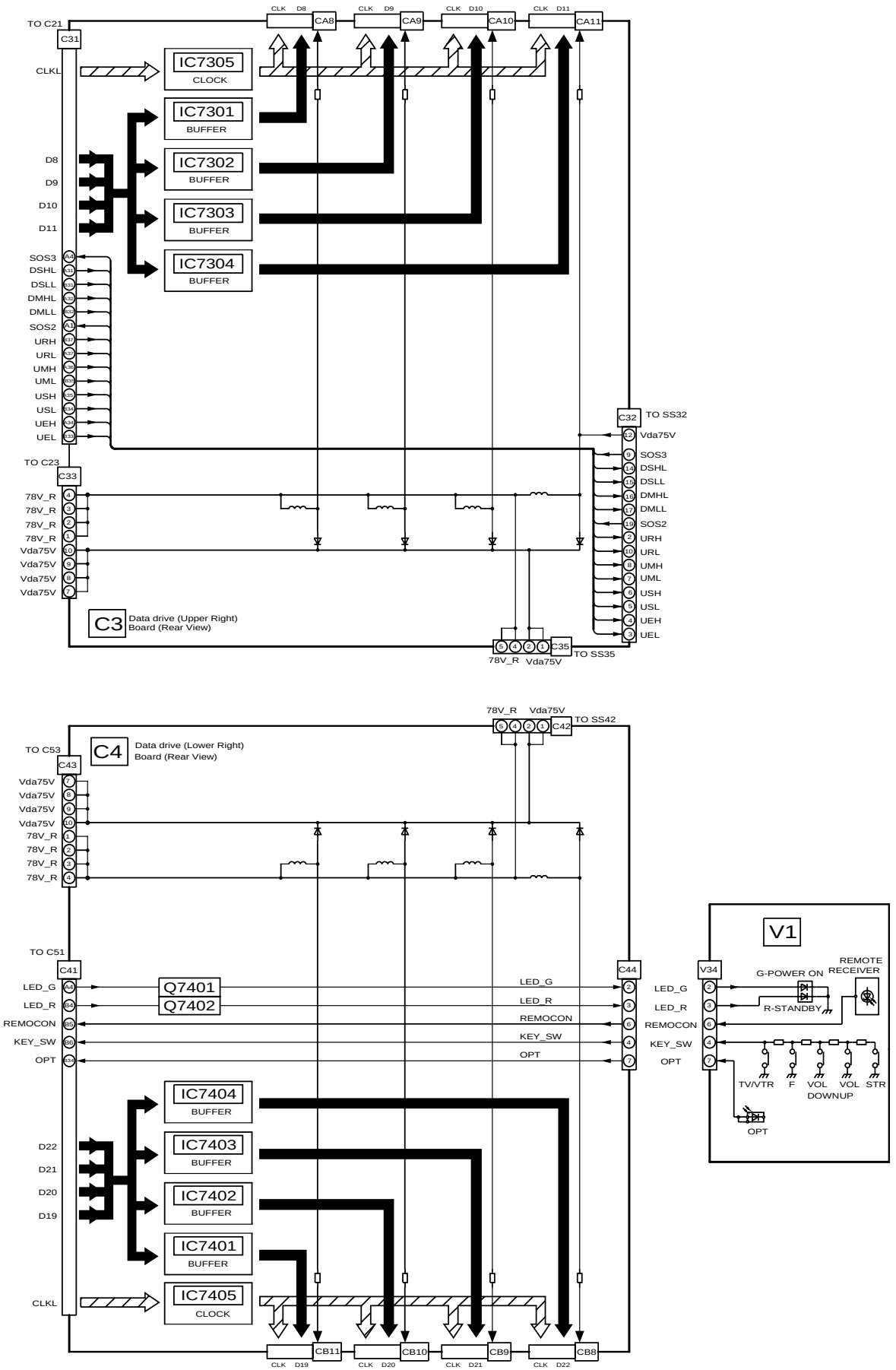


TH-50PHD6/TH-50PHW6
C1, C2, C3, C4, C5, C6 and V1-BOARD Block Diagram (1 of 2)



TH-50PHD6/TH-50PHW6
C1, C2, C3, C4, C5, C6 and V1-BOARD Block Diagram (1 of 2)

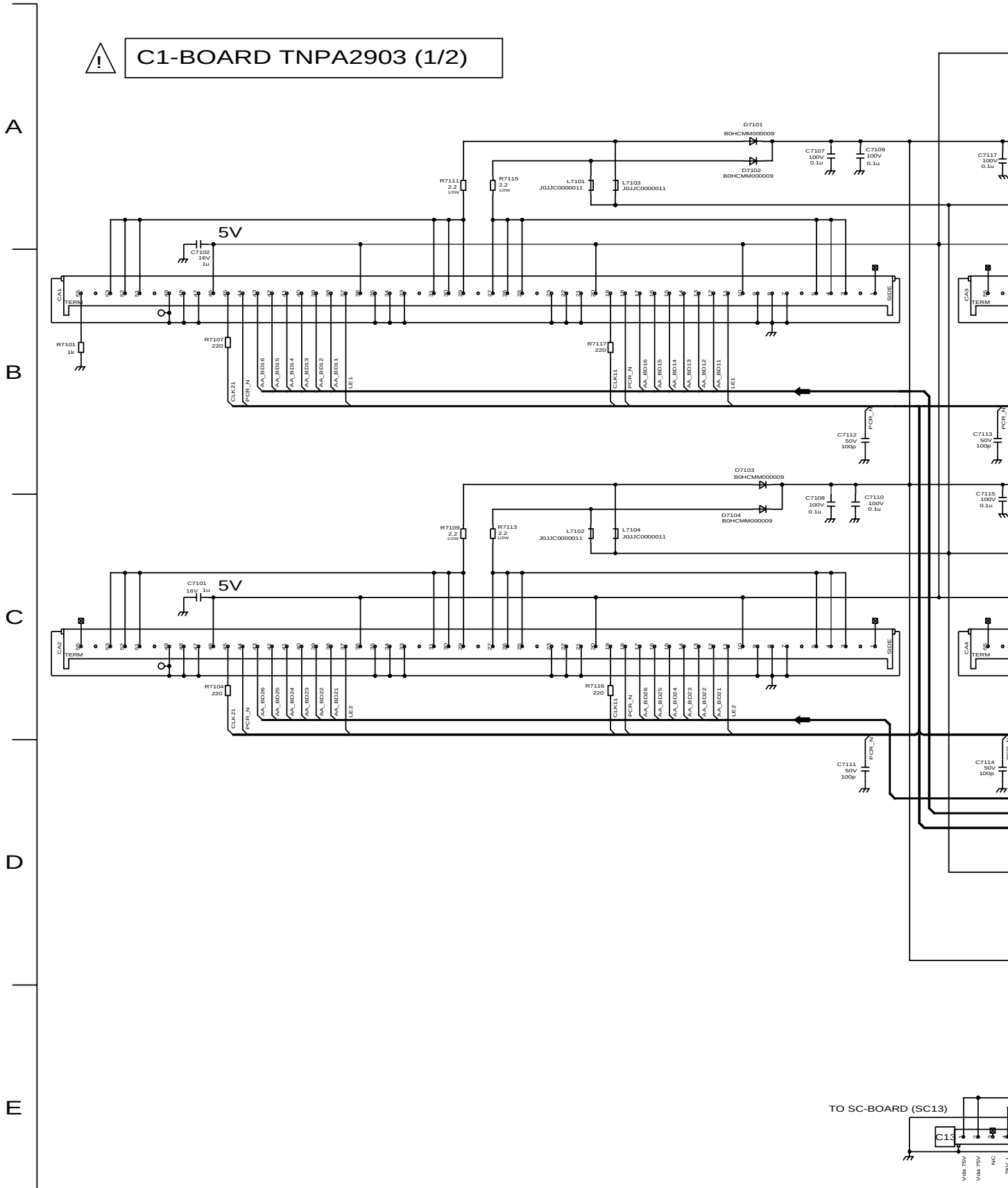
14.40. C1, C2, C3, C4, C5, C6 and V1-Board Block Diagram (2 of 2)



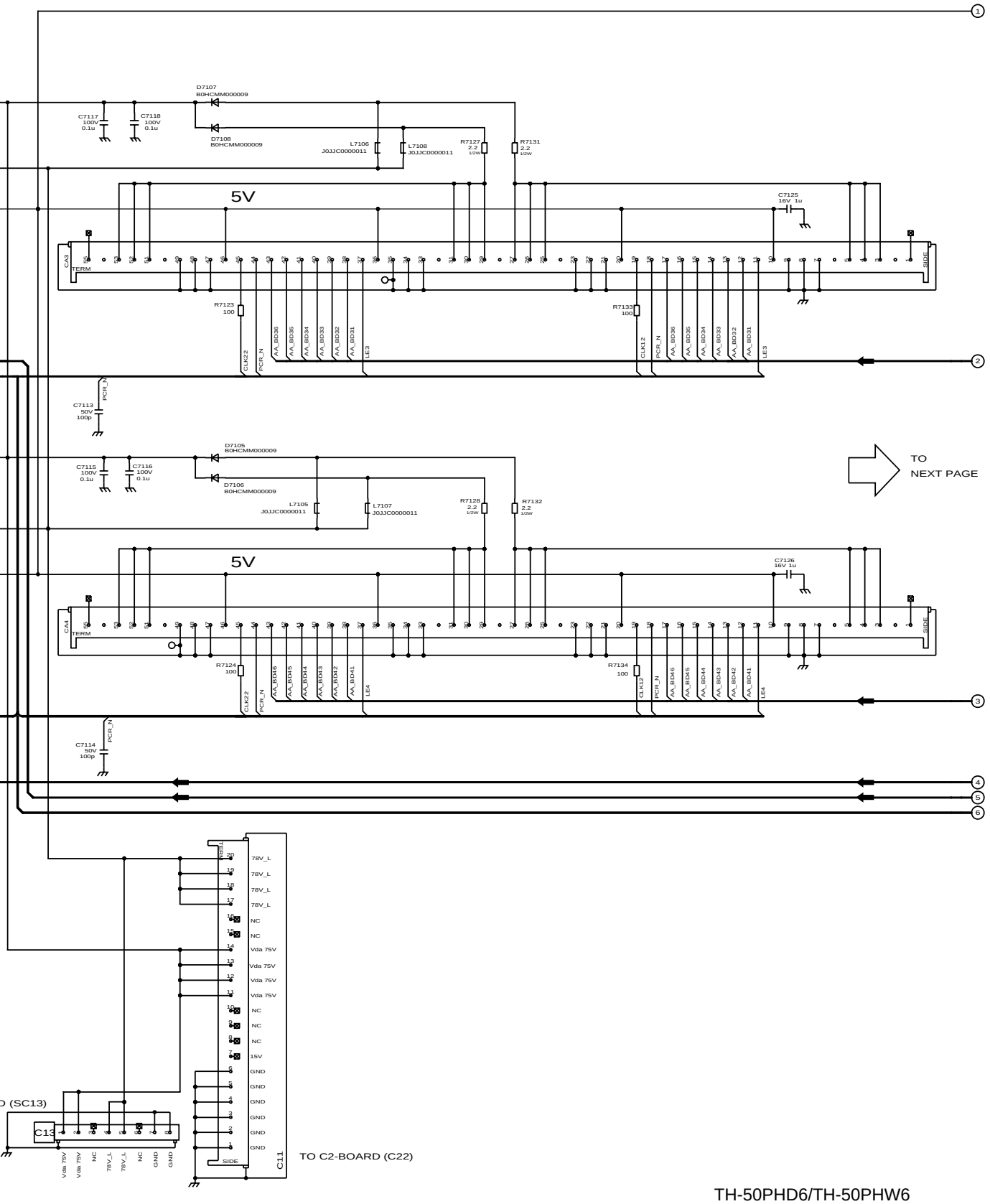
TH-50PHD6/TH-50PHW6
C1, C2, C3, C4, C5, C6 and V1-BOARD Block Diagram (2 of 2)

TH-50PHD6/TH-50PHW6
C1, C2, C3, C4, C5, C6 and V1-BOARD Block Diagram (2 of 2)

14.41. C1-Board (1 of 2) Schematic Diagram



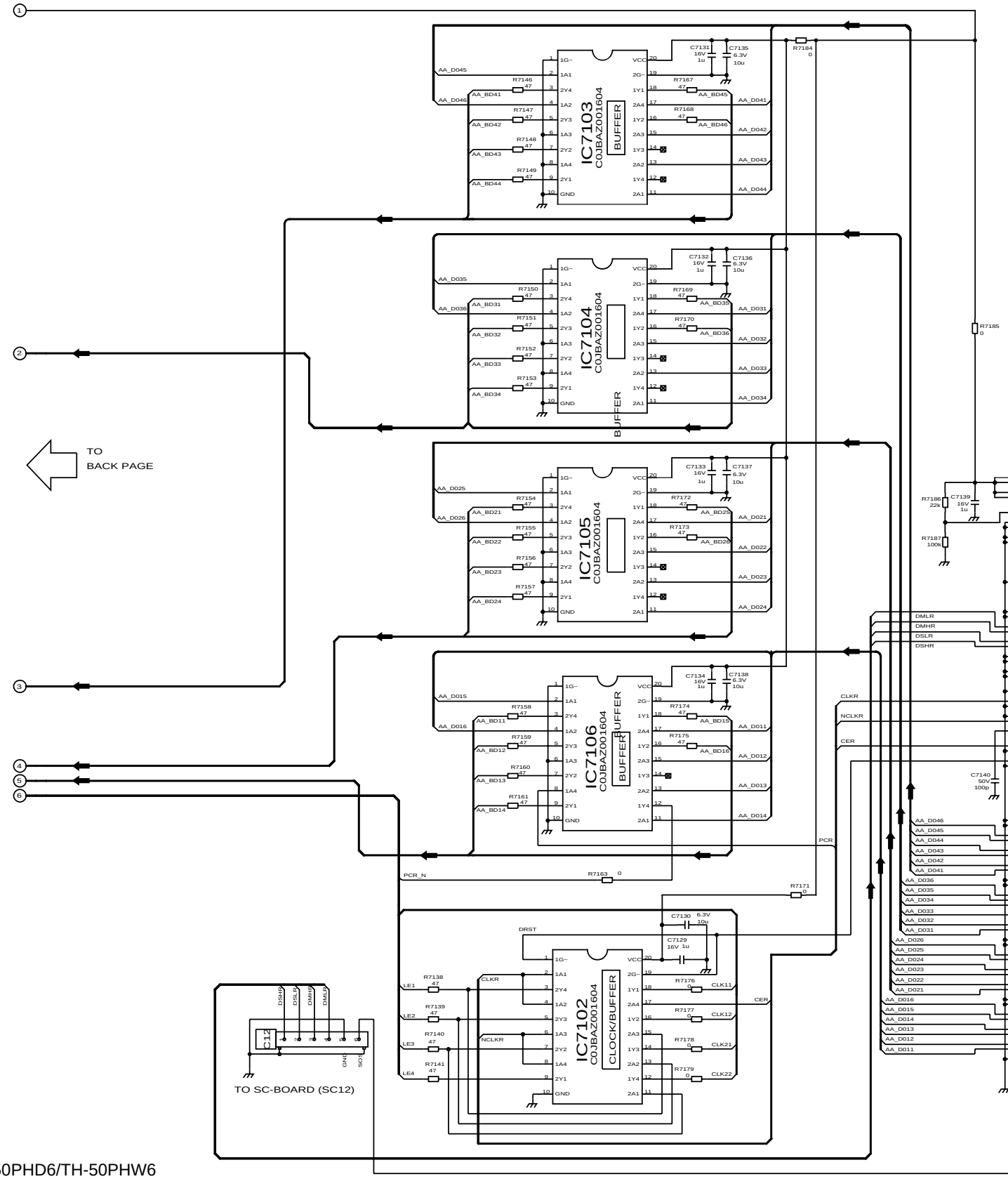
TH-50PHD6/TH-50PHW6
C1-BOARD (1 of 2) Schematic Diagram



TH-50PHD6/TH-50PHW6
C1-BOARD (1 of 2) Schematic Diagram

5 6 7 8

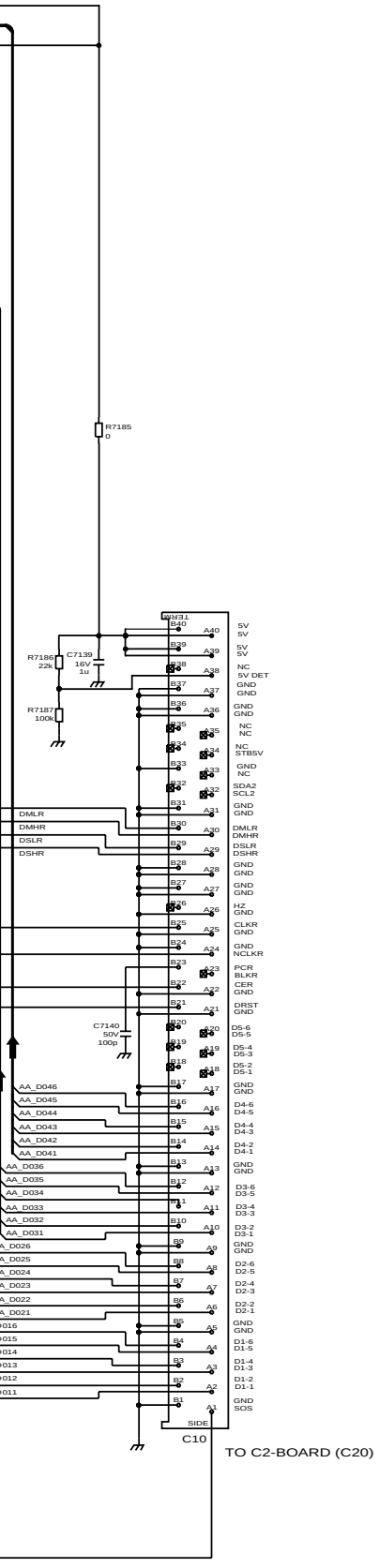
14.42. C1-Board (2 of 2) Schematic Diagram



TH-50PHD6/TH-50PHW6
C1-BOARD (2 of 2) Schematic Diagram

8 9 10 11 12

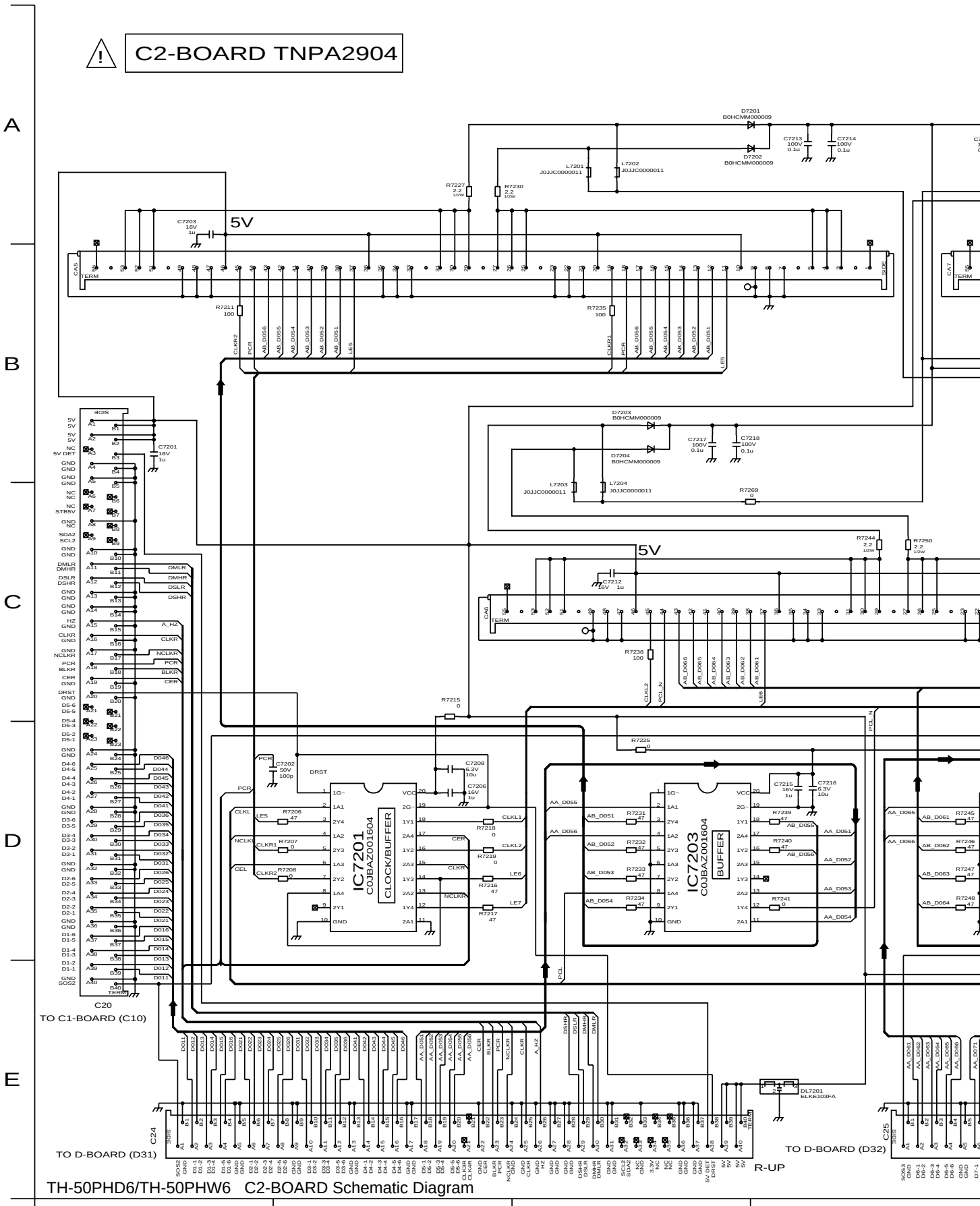
C1-BOARD TNPA2903 (2/2)



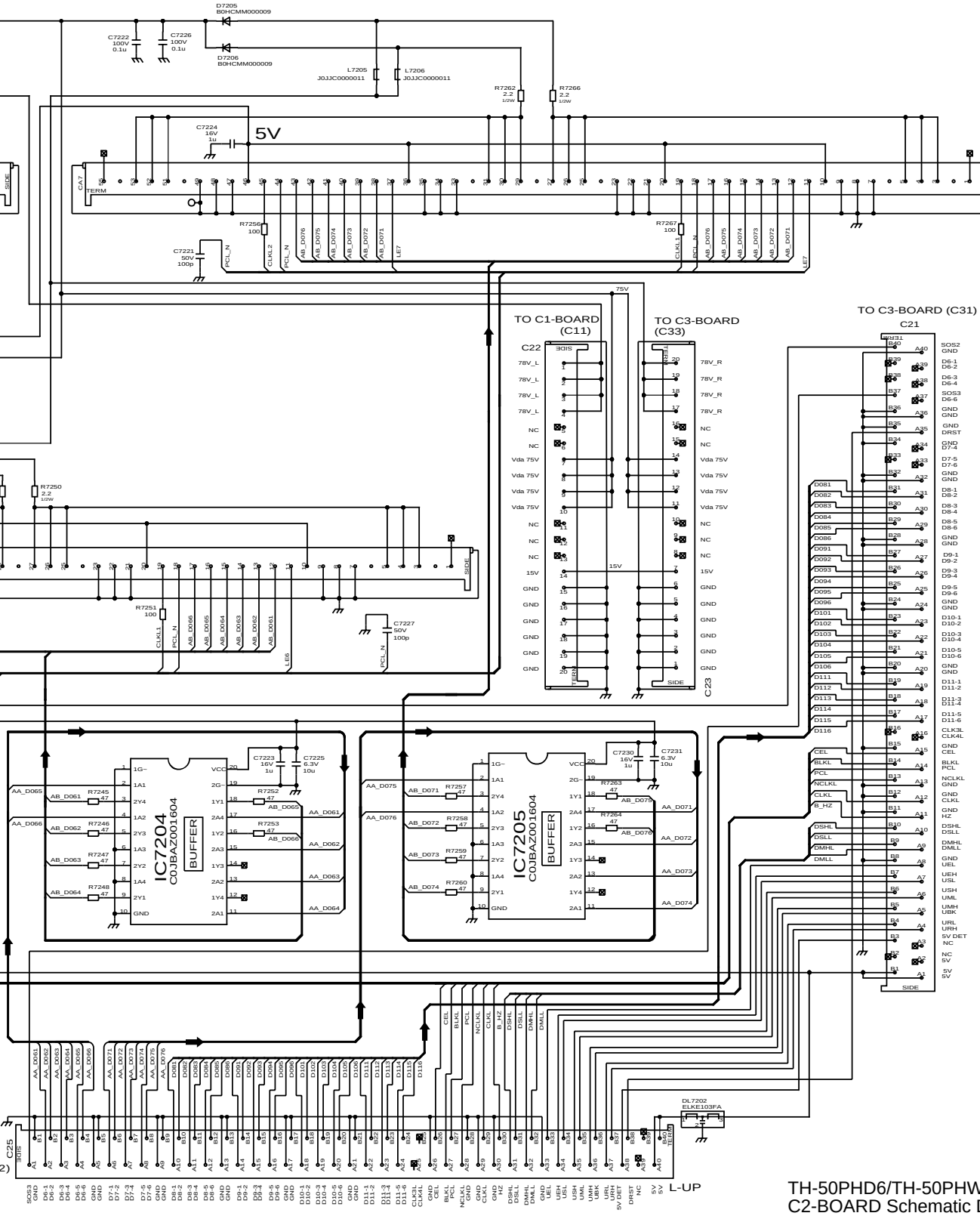
TH-50PHD6/TH-50PHW6
C1-BOARD (2 of 2) Schematic Diagram

12 13 14 15

14.43. C2-Board Schematic Diagram



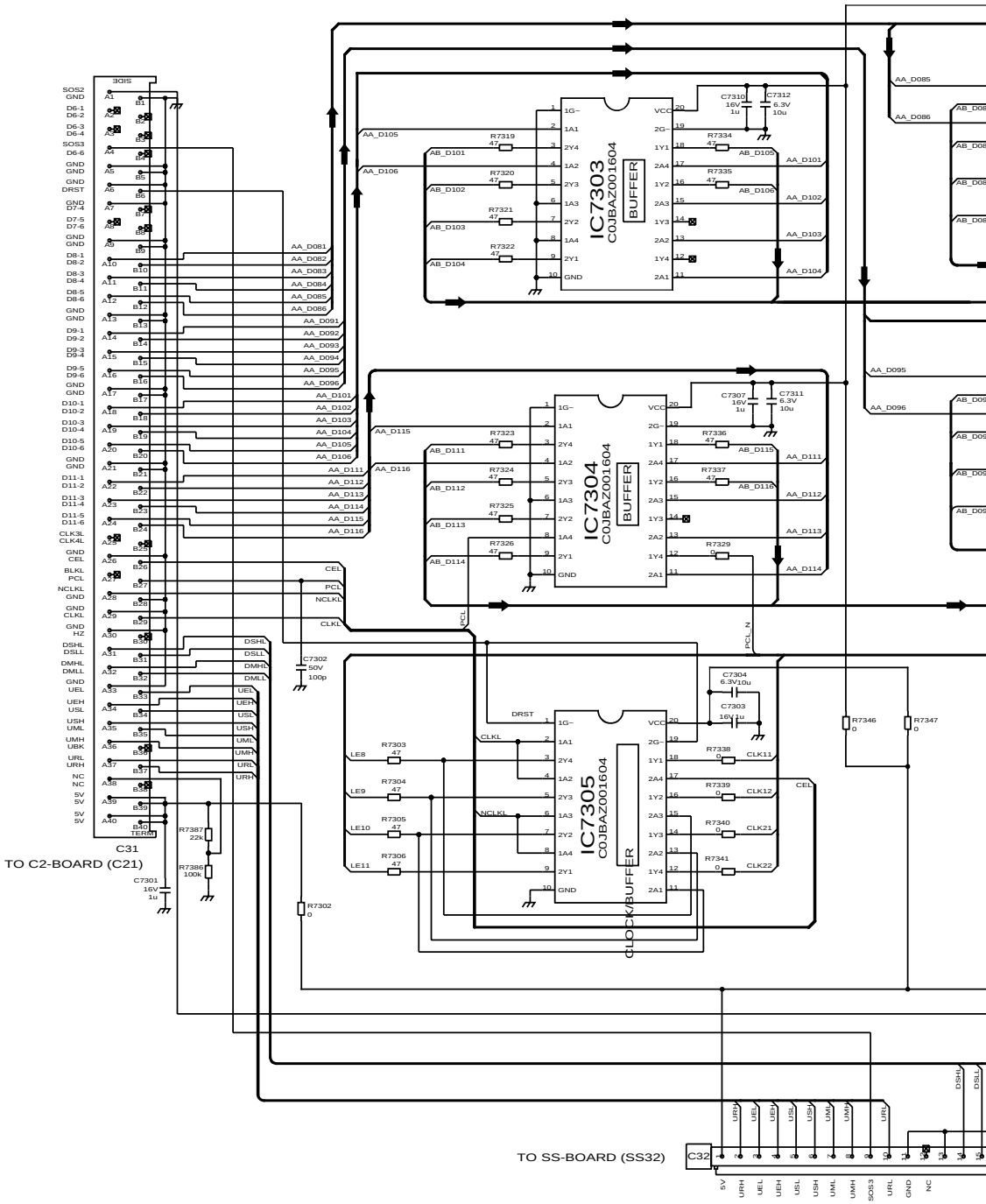
TH-50PHD6/TH-50PHW6 C2-BOARD Schematic Diagram



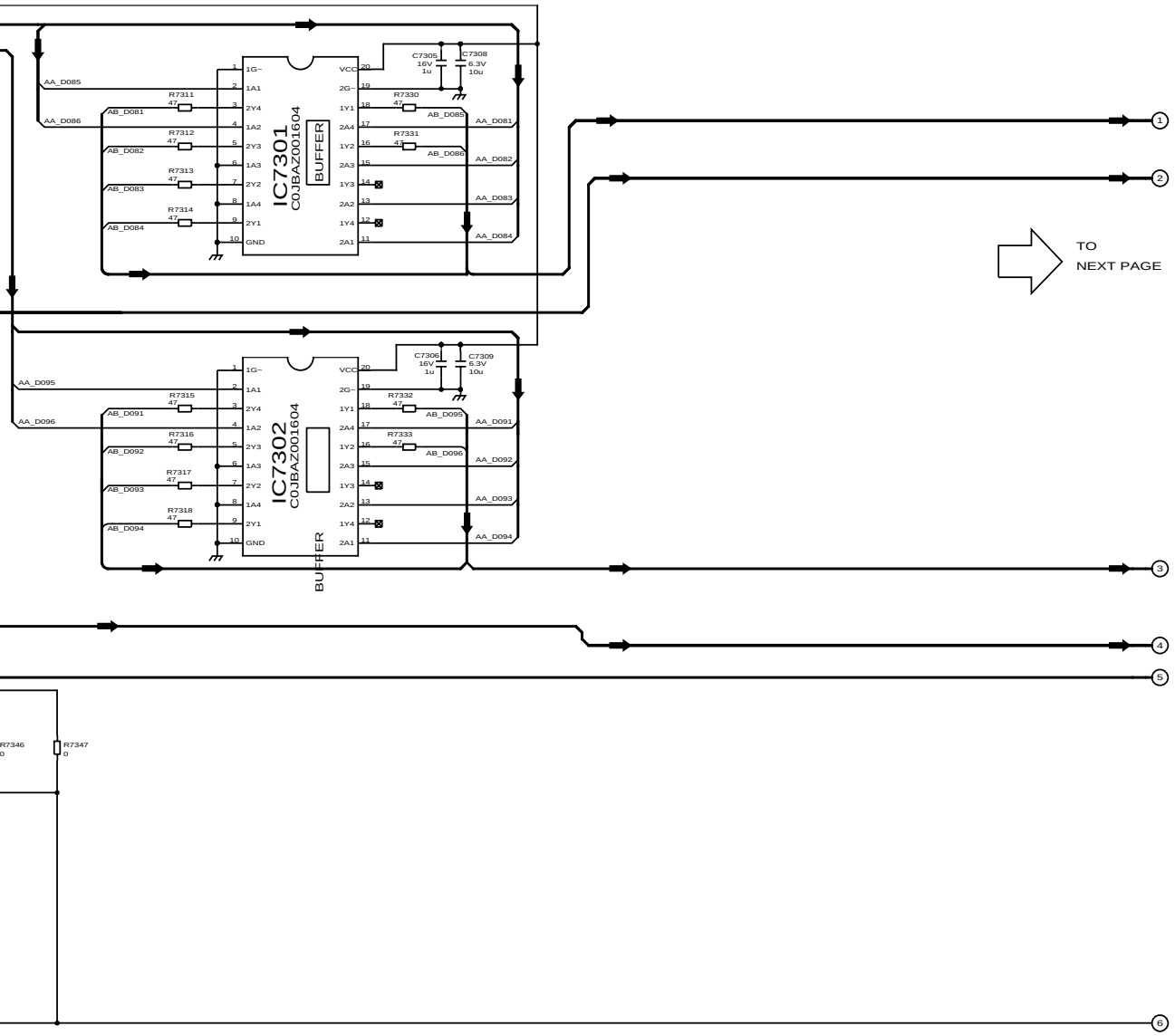
TH-50PHD6/TH-50PHW6
C2-BOARD Schematic Diagram

14.44. C3-Board (1 of 2) Schematic Diagram

C3-BOARD TNPA2905 (1/2)



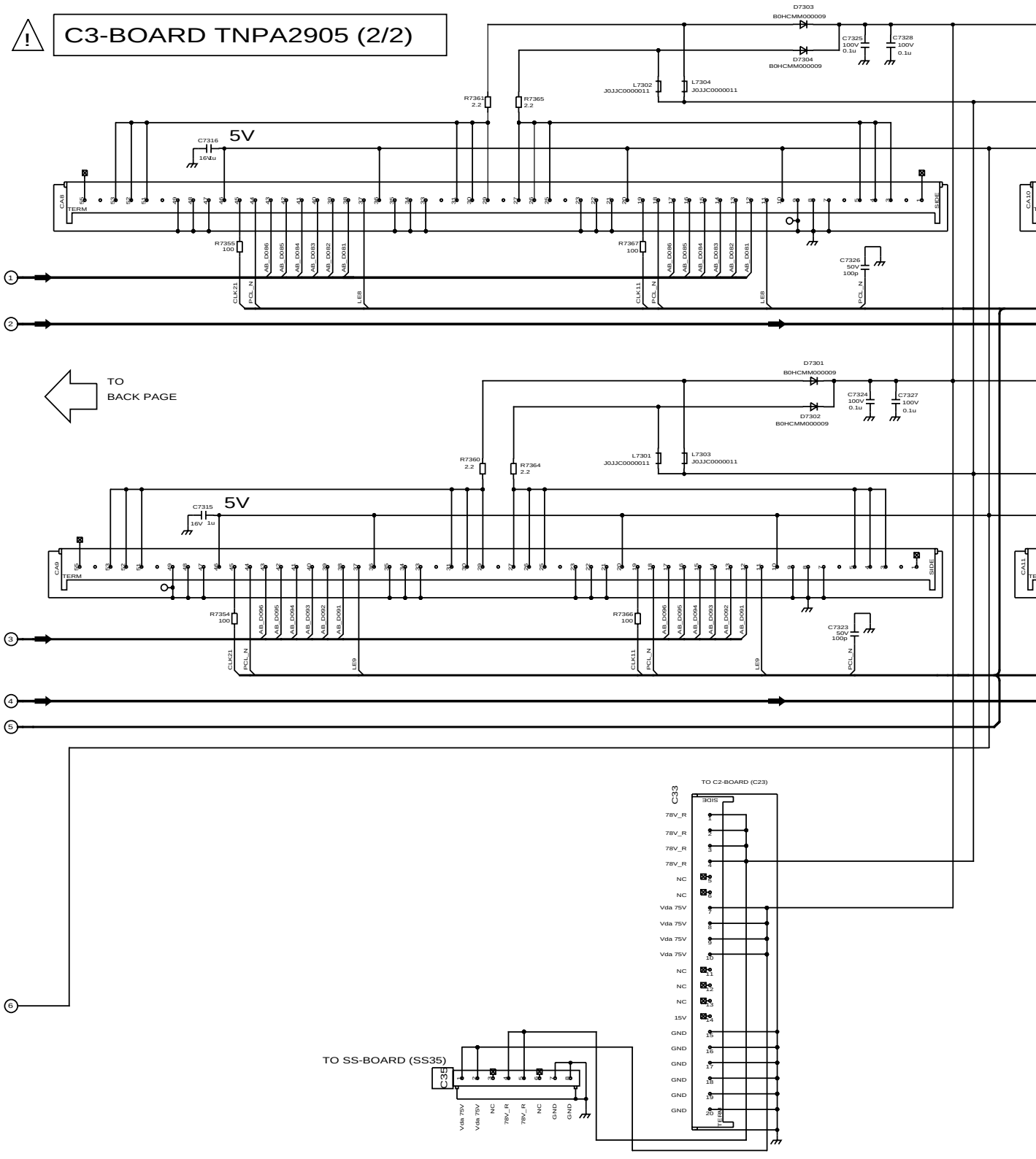
TH-50PHD6/TH-50PHW6
C3-BOARD (1 of 2) Schematic Diagram



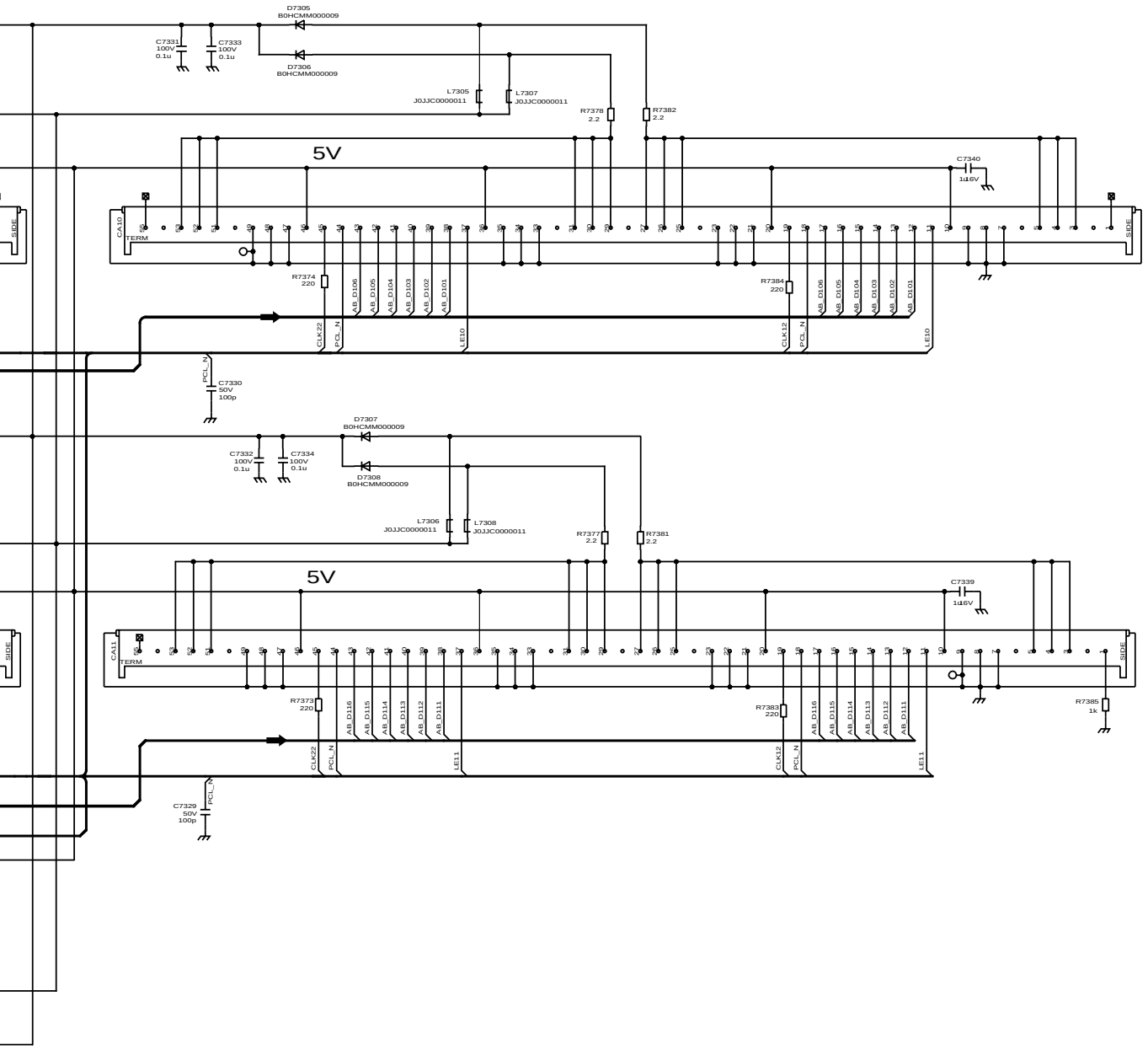
TH-50PHD6/TH-50PHW6
C3-BOARD (1 of 2) Schematic Diagram

5 6 7 8

14.45. C3-Board (2 of 2) Schematic Diagram



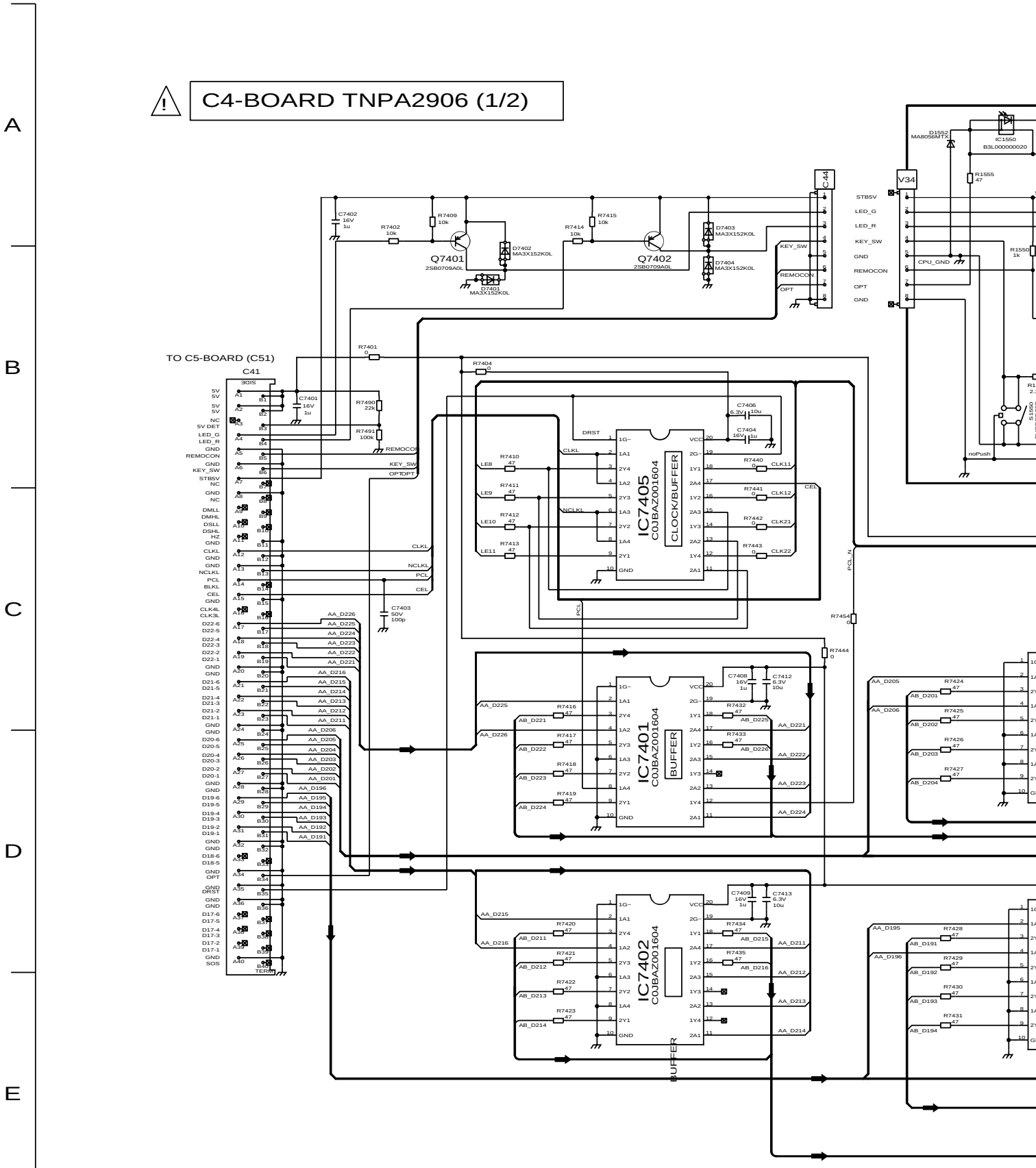
TH-50PHD6/TH-50PHW6
C3-BOARD (2 of 2) Schematic Diagram



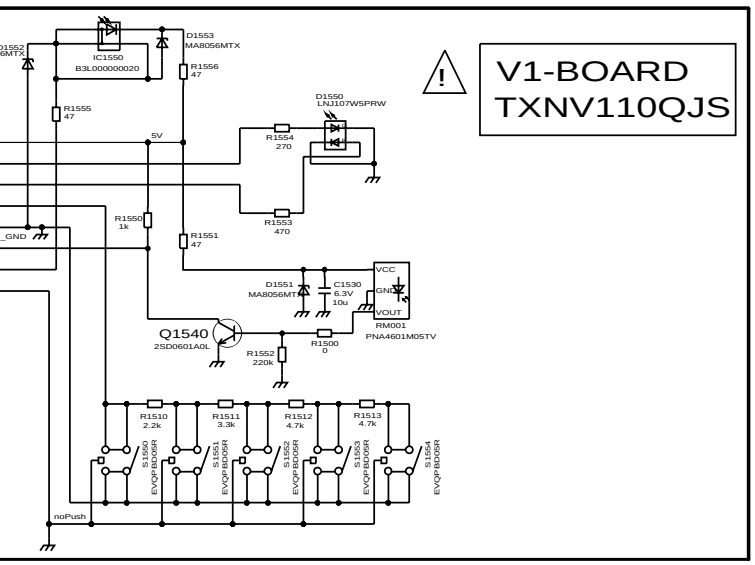
TH-50PHD6/TH-50PHW6
C3-BOARD (2 of 2) Schematic Diagram

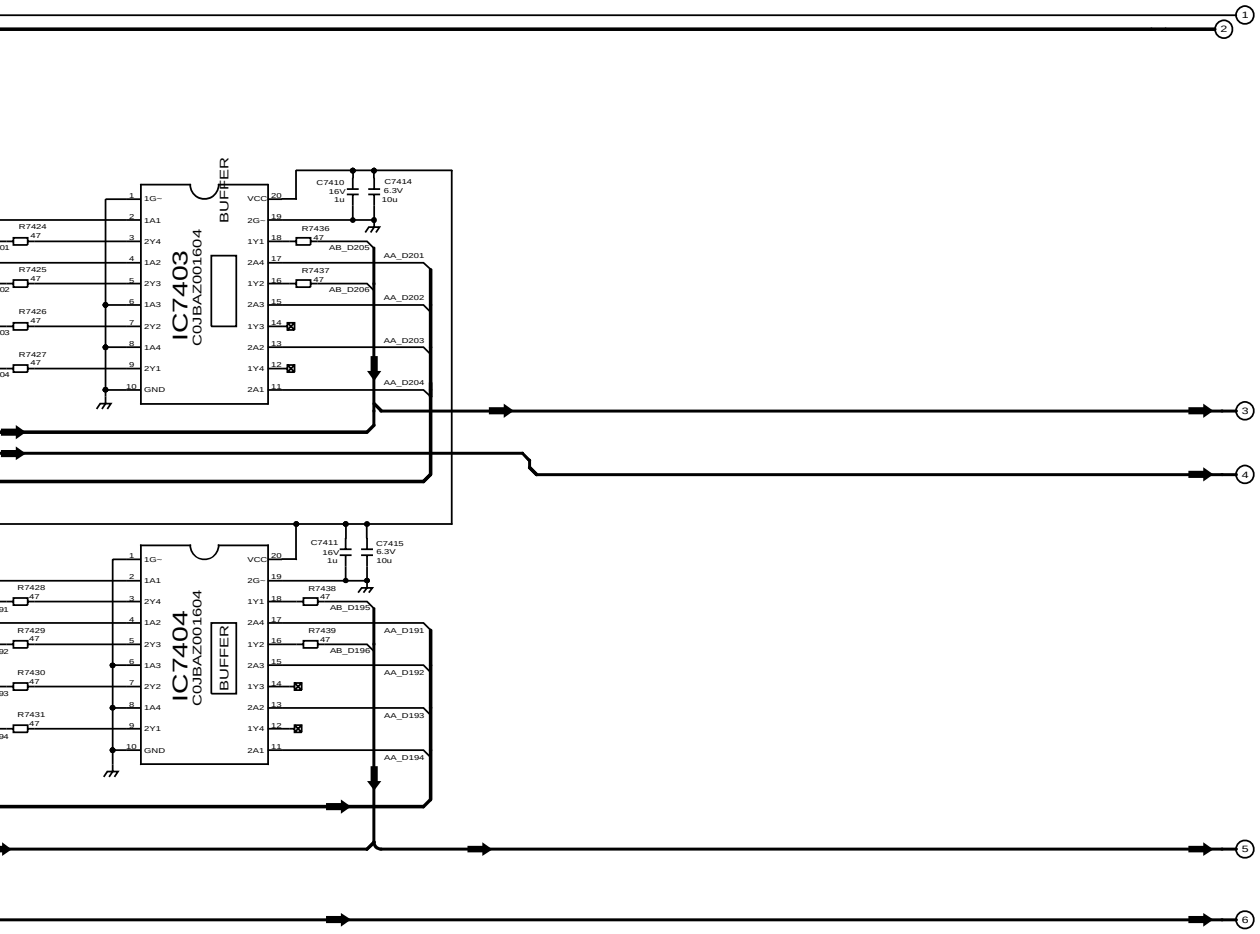
12 13 14 15

14.46. C4-Board (1 of 2) and V1-Board Schematic Diagram



TH-50PHD6/TH-50PHW6
C4-BOARD (1 of 2) and V1-BOARD Schematic Diagram



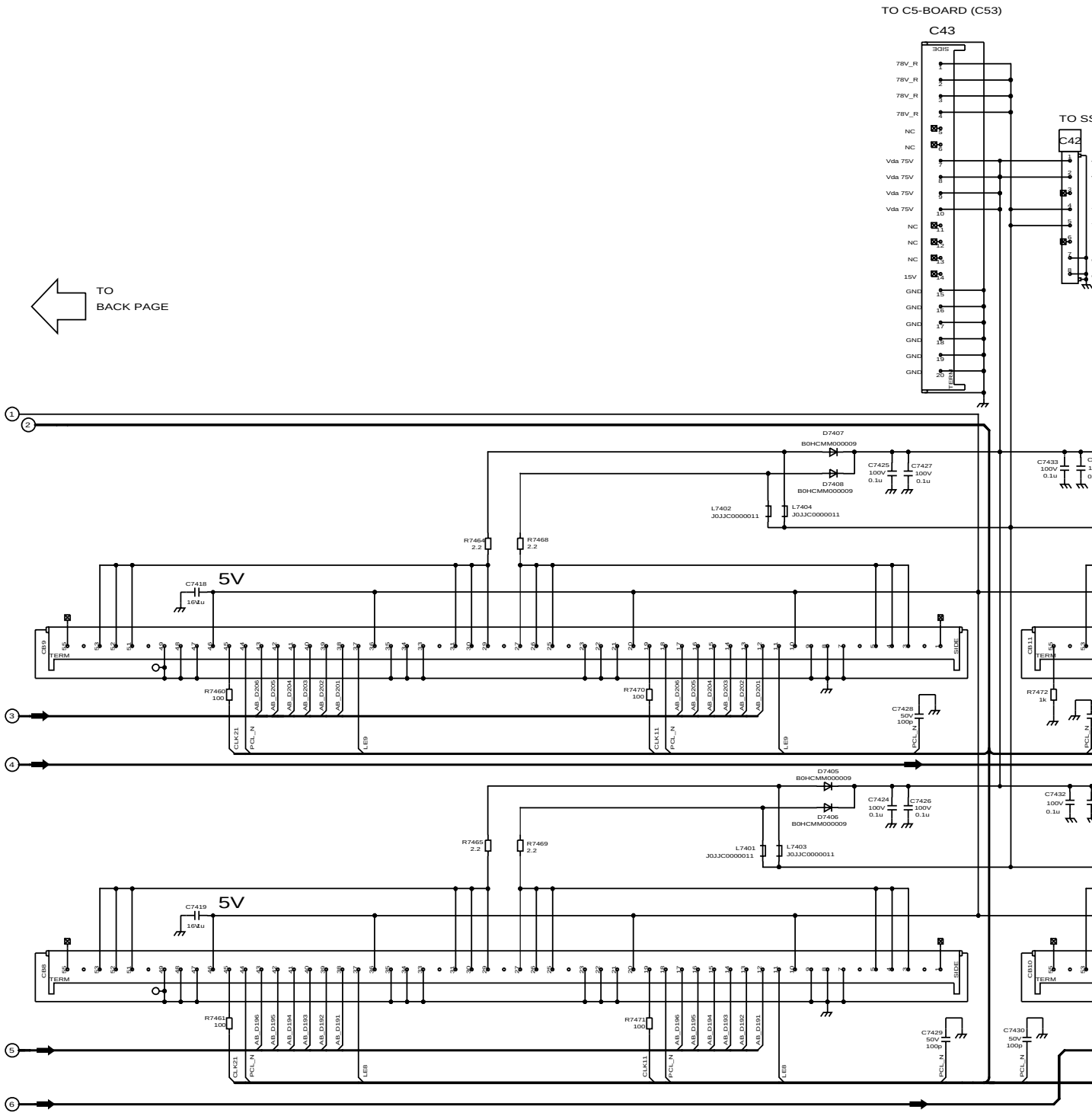


TH-50PHD6/TH-50PHW6
C4-BOARD (1 of 2) and V1-BOARD Schematic Diagram

5 6 7 8

14.47. C4-Board (2 of 2) Schematic Diagram

C4-BOARD TNPA2906 (2/2)

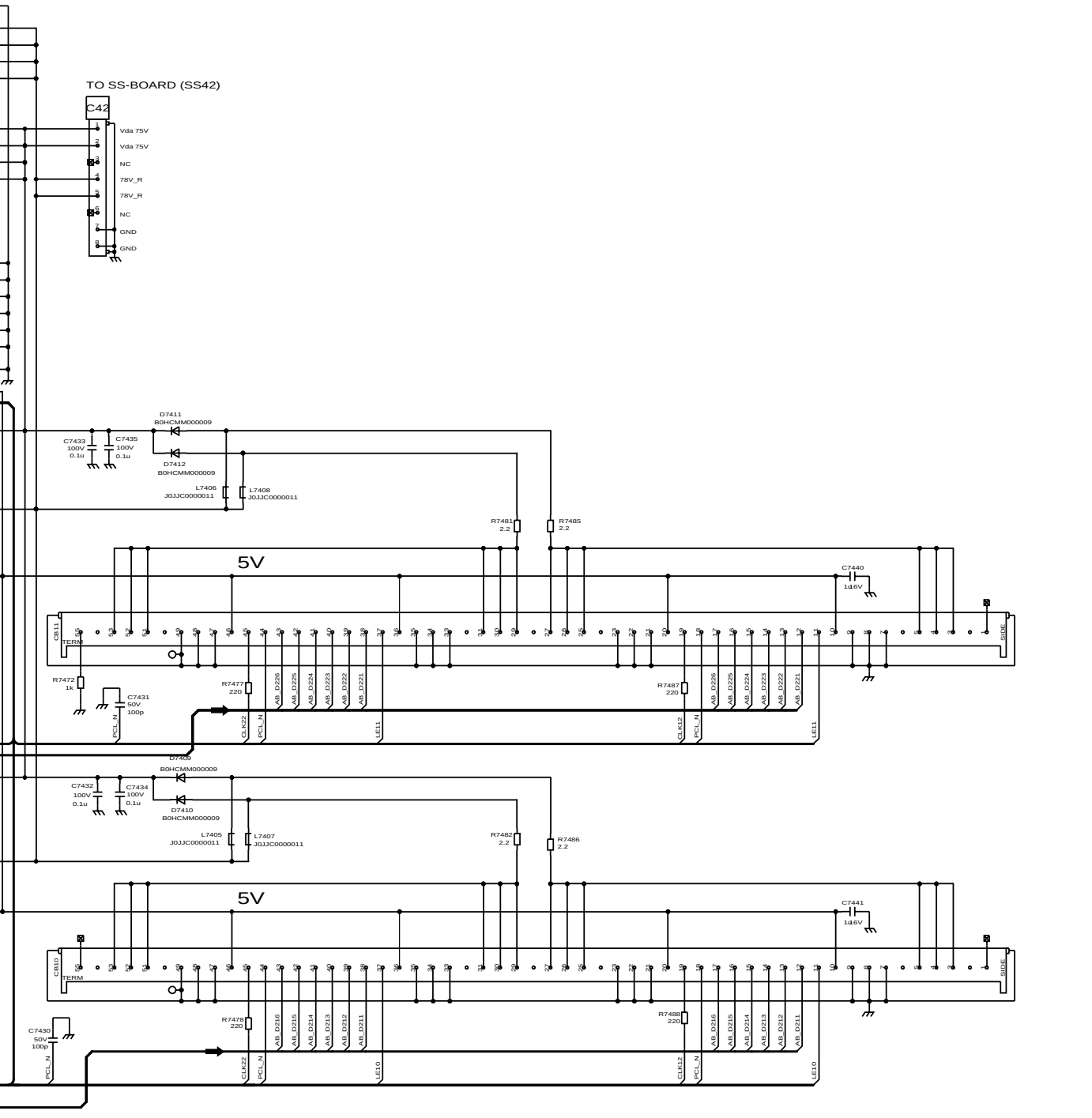


TH-50PHD6/TH-50PHW6
C4-BOARD (2 of 2) Schematic Diagram

8 9 10 11 12

C53)

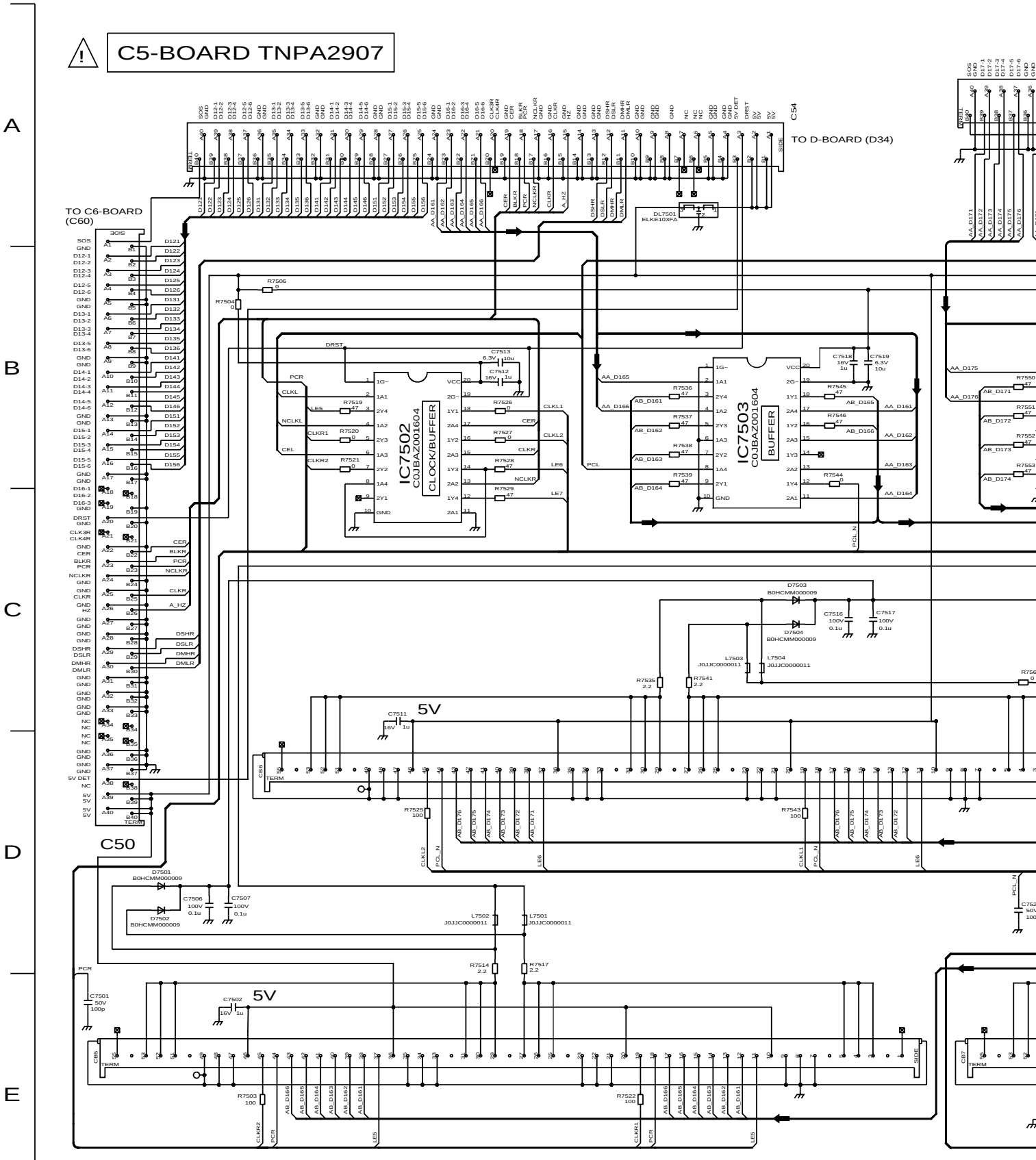
TO SS-BOARD (SS42)



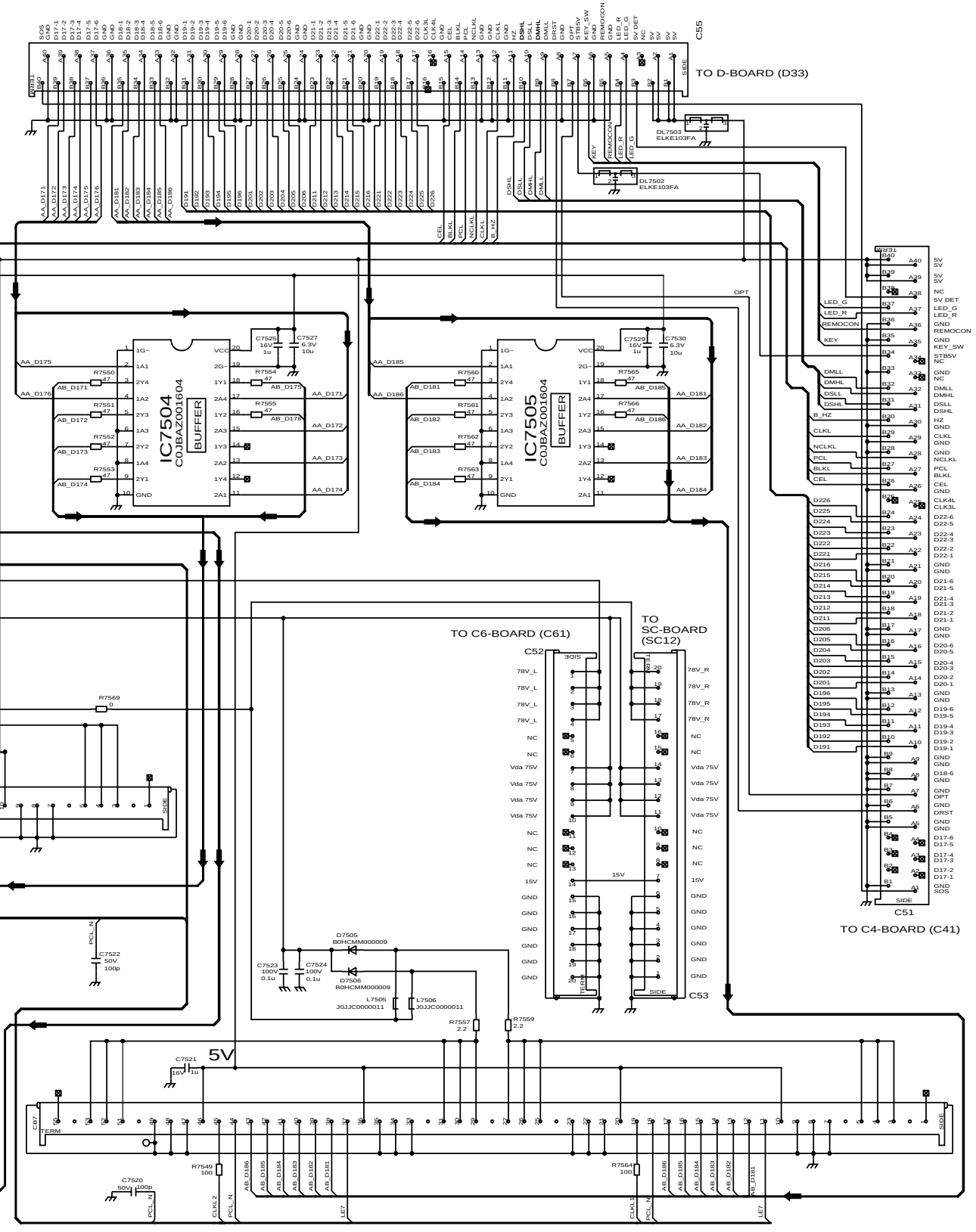
TH-50PHD6/TH-50PHW6
C4-BOARD (2 of 2) Schematic Diagram

12 13 14 15

14.48. C5-Board Schematic Diagram



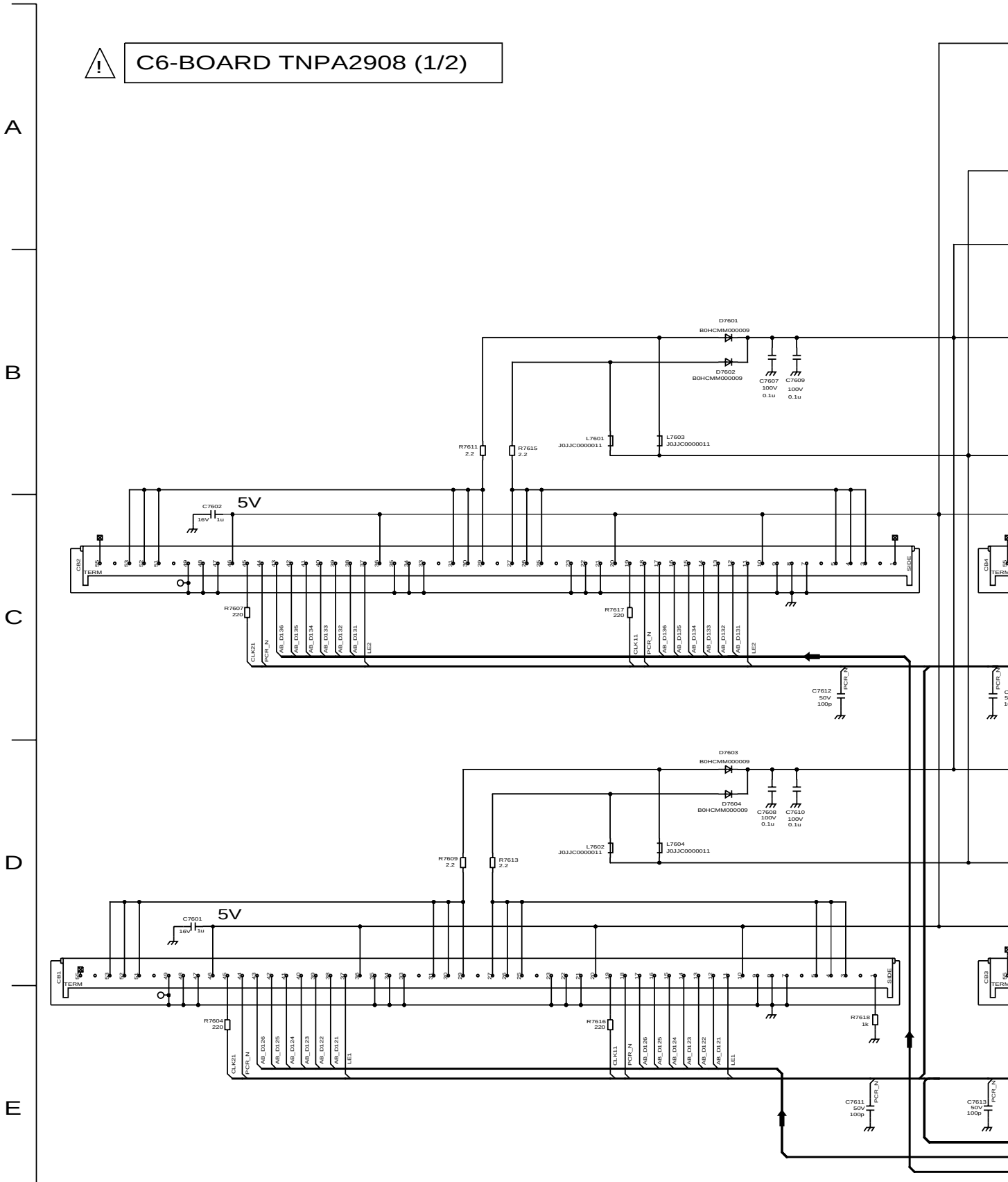
TH-50PHD6/TH-50PHW6
C5-BOARD Schematic Diagram



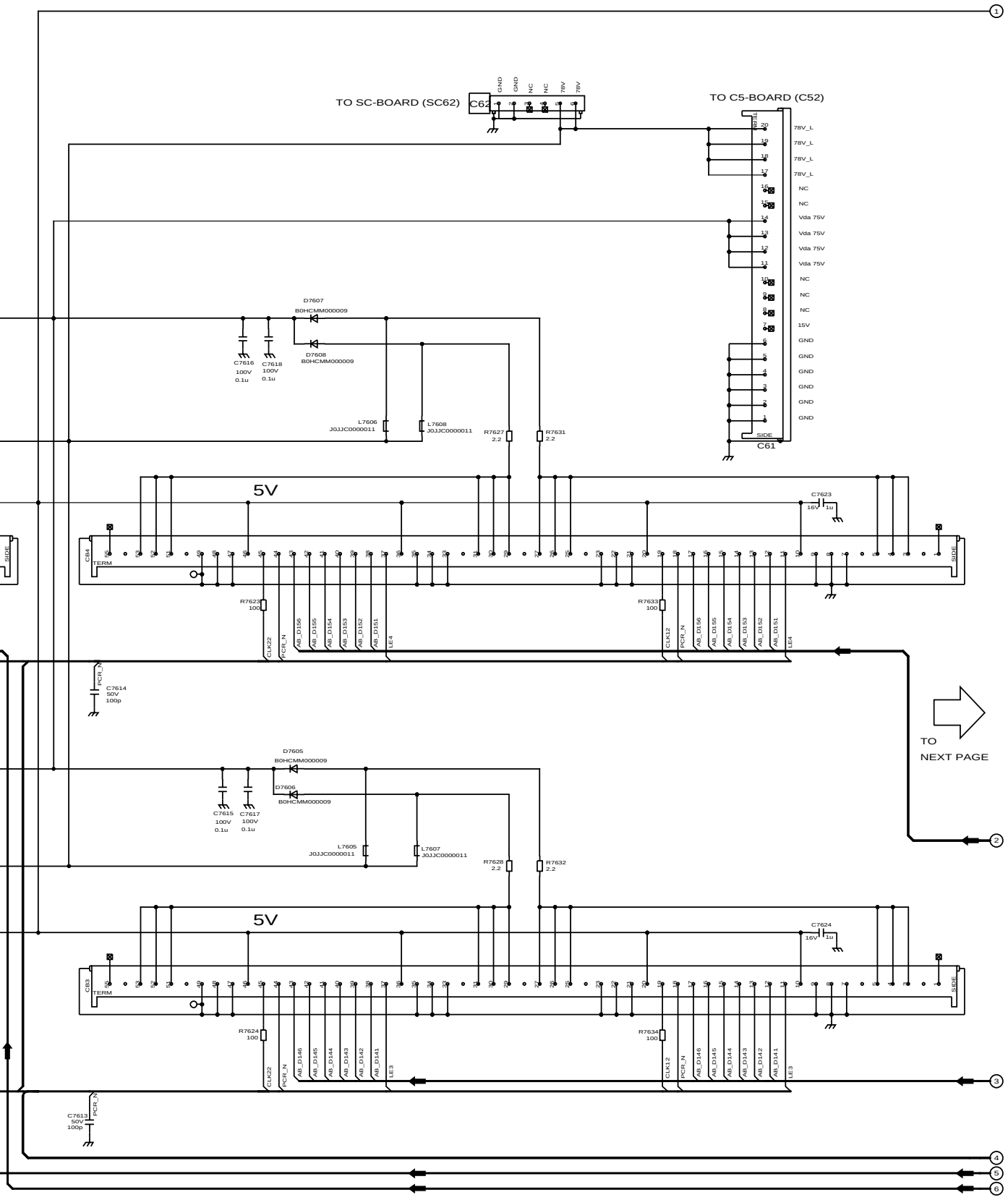
TH-50PHD6/TH-50PHW6
C5-BOARD Schematic Diagram

5 6 7 8

14.49. C6-Board (1 of 2) Schematic Diagram



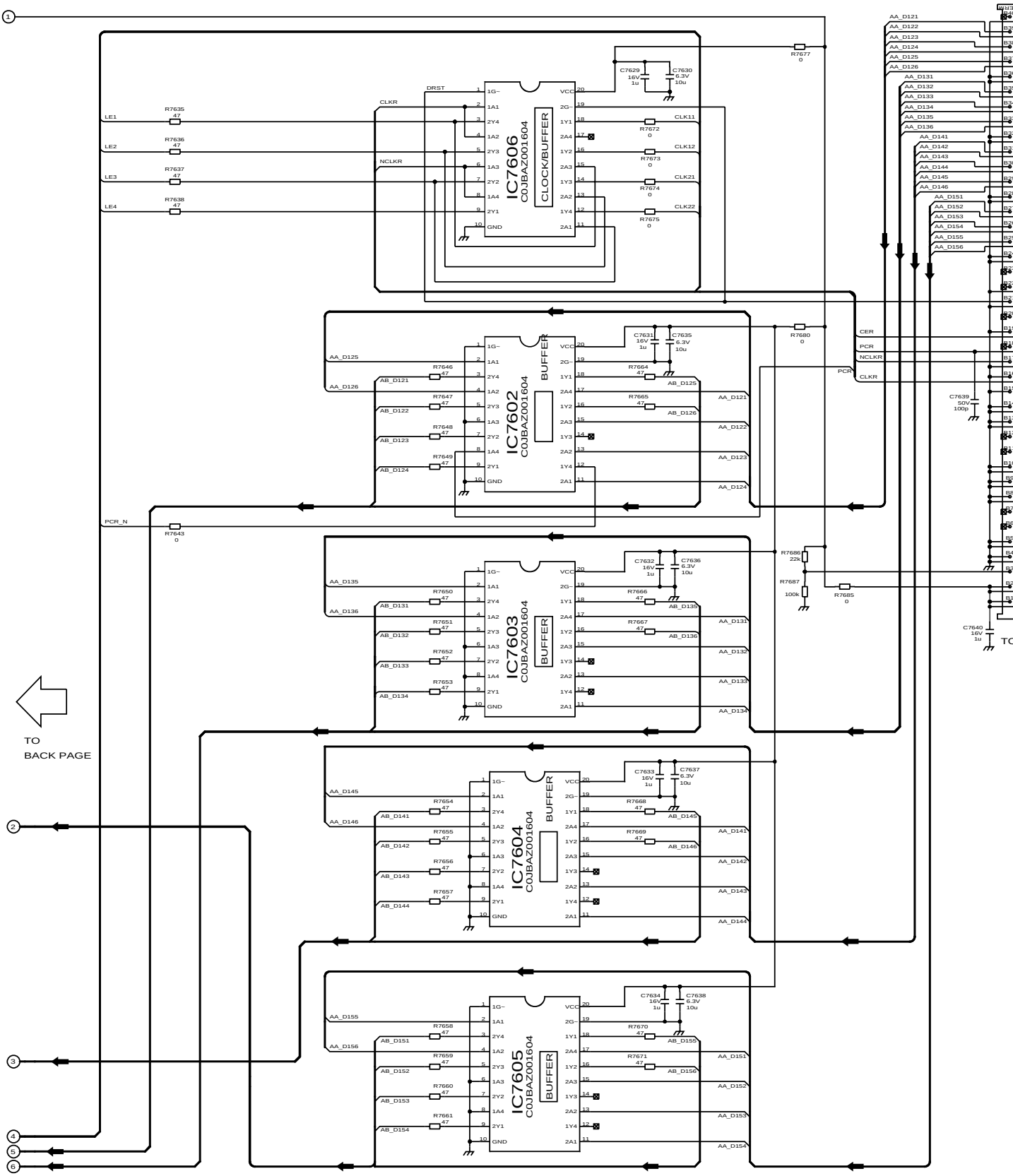
TH-50PHD6/TH-50PHW6
C6-BOARD (1 of 2) Schematic Diagram



TH-50PHD6/TH-50PHW6
C6-BOARD (1 of 2) Schematic Diagram

5 6 7 8

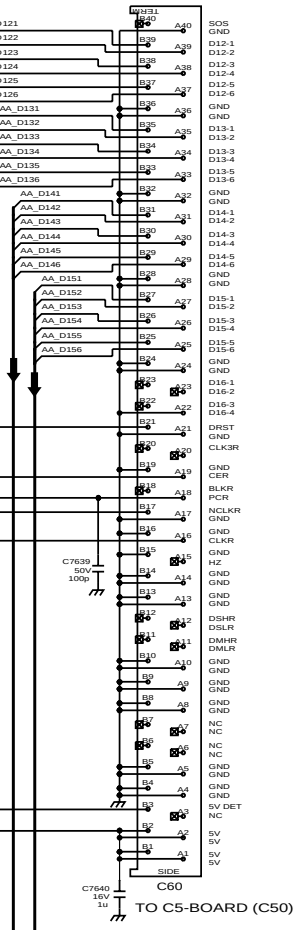
14.50. C6-Board (2 of 2) Schematic Diagram



TH-50PHD6/TH-50PHW6
C6-BOARD (2 of 2) Schematic Diagram

8 9 10 11 12

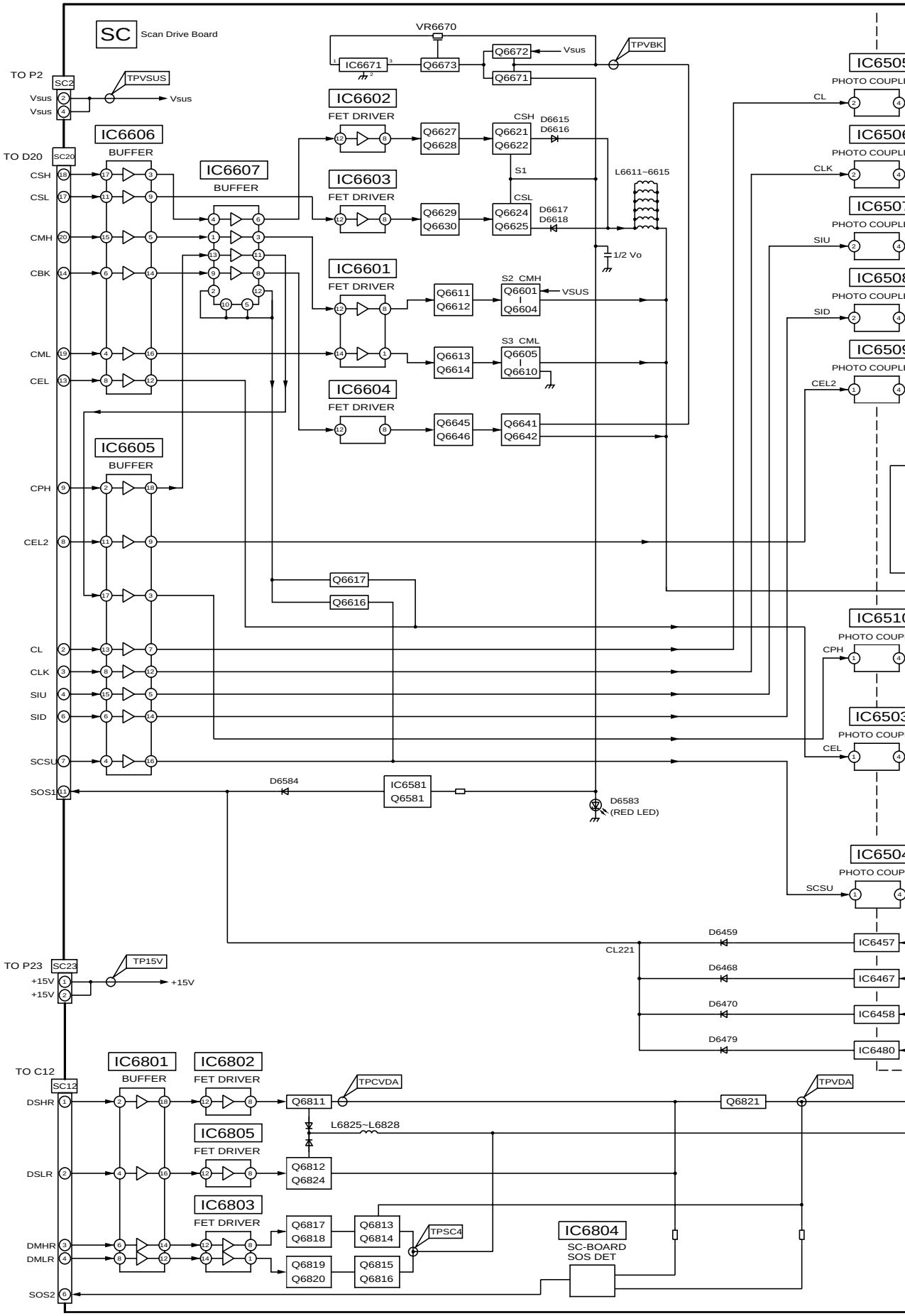
C6-BOARD TNPA2908 (2/2)



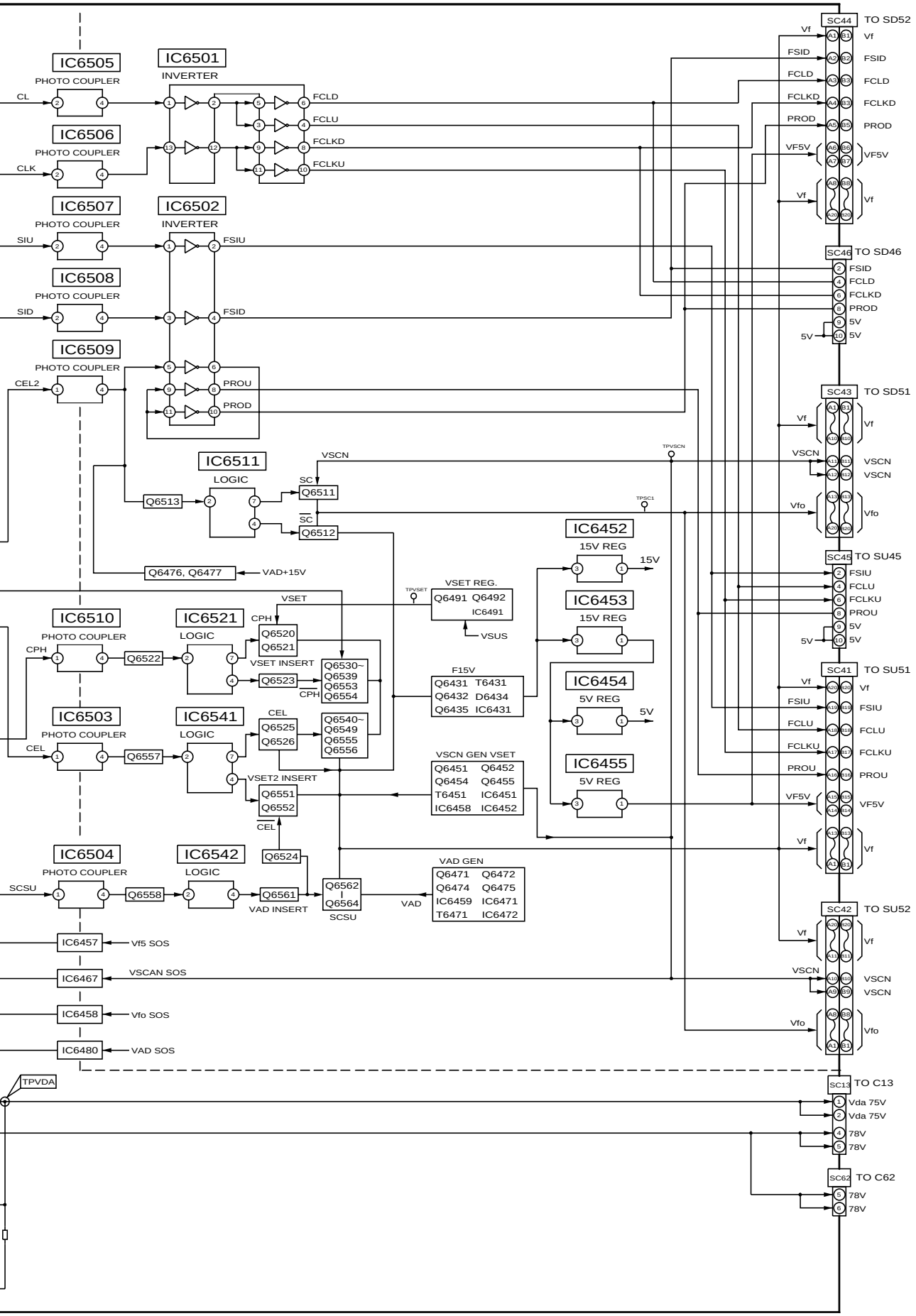
TH-50PHD6/TH-50PHW6
C6-BOARD (2 of 2) Schematic Diagram

12 13 14 15

14.51. SC-Board Block Diagram



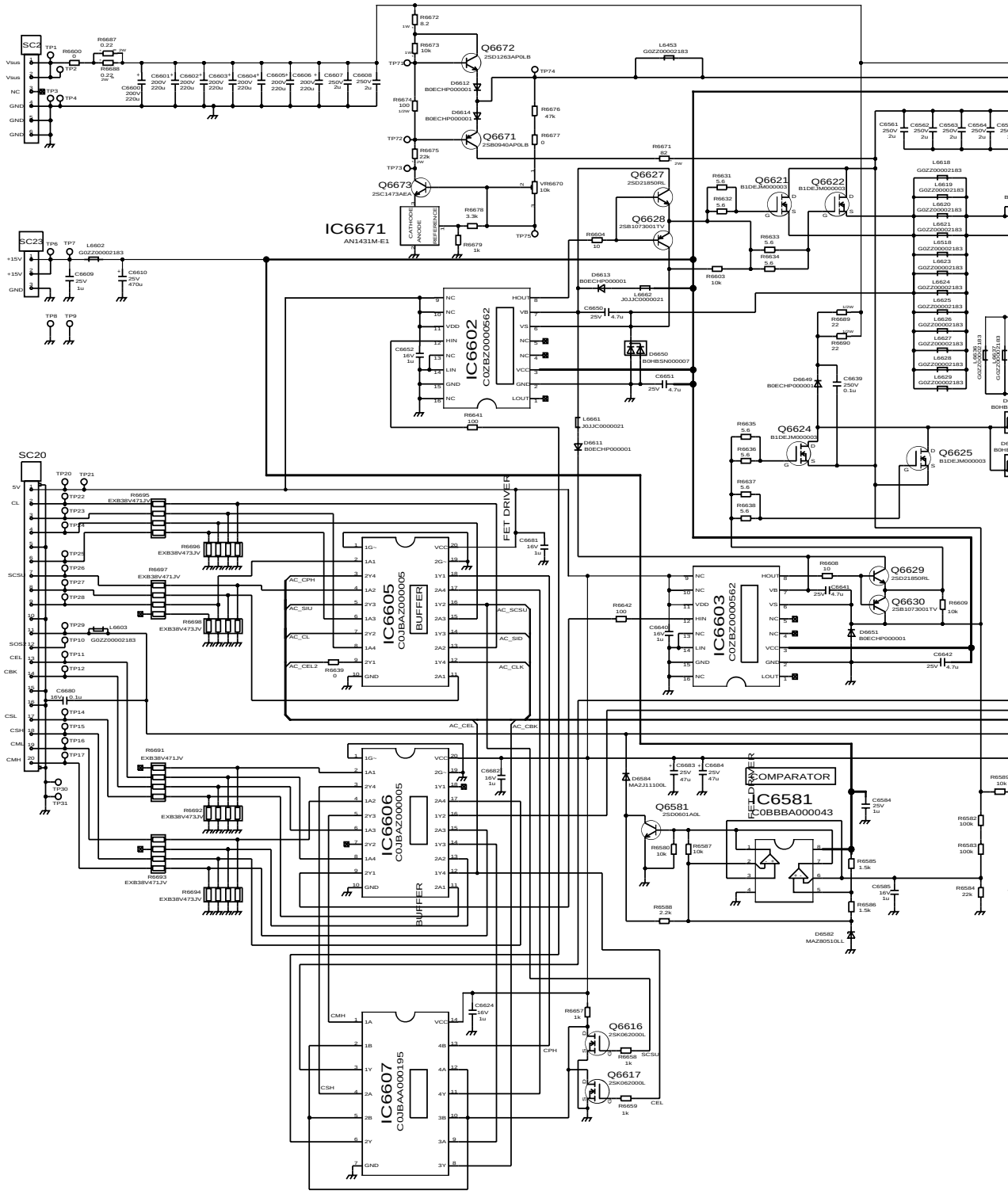
TH-50PHD6/TH-50PHW6 SC-BOARD Block Diagram



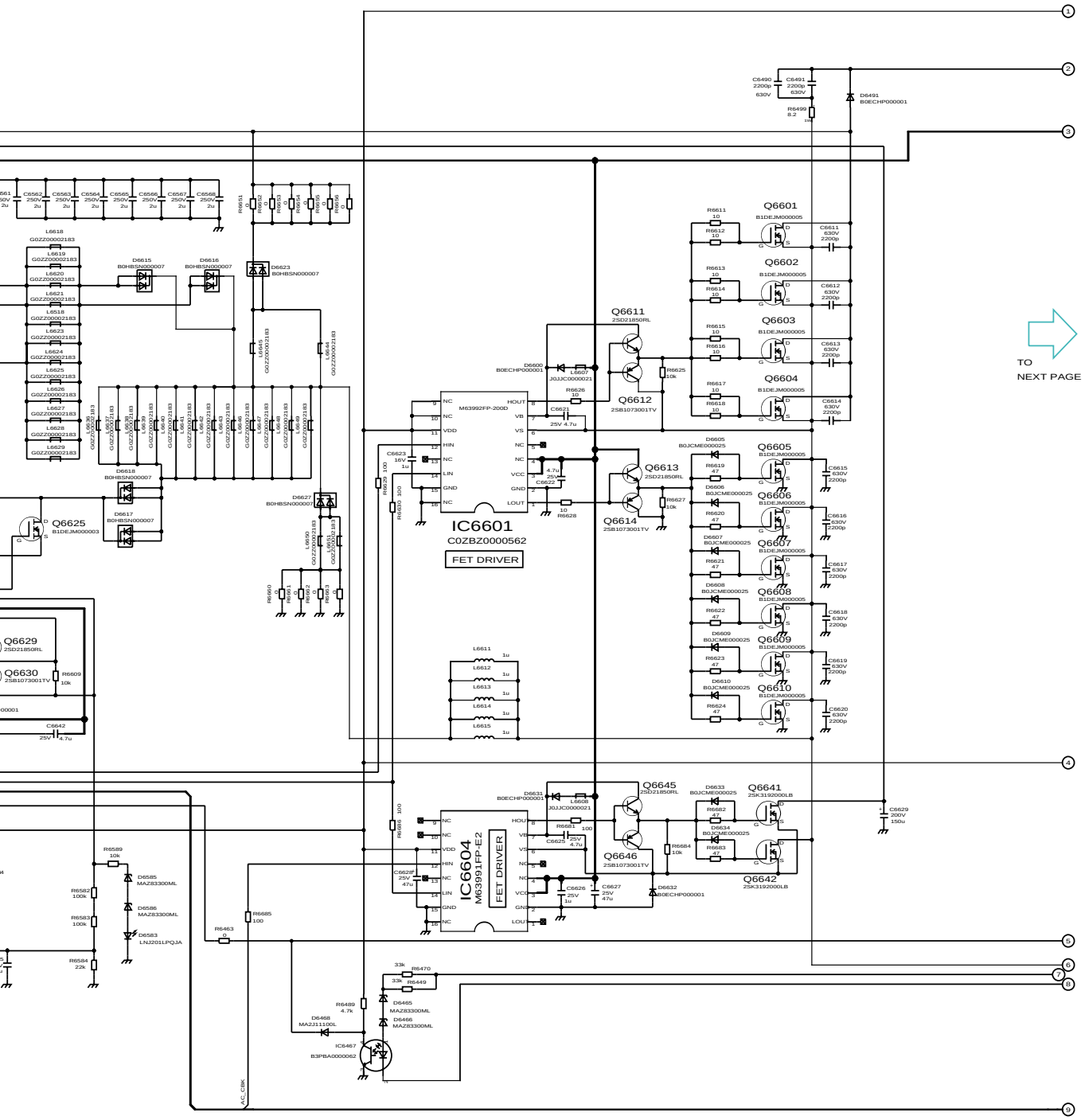
TH-50PHD6/TH-50PHW6 SC-BOARD Block Diagram

14.52. SC-Board (1 of 3) Schematic Diagram

SC-BOARD TXNSC10QMS (1/3)



TH-50PHD6/TH-50PHW6
SC-BOARD (1 of 3) Schematic Diagram

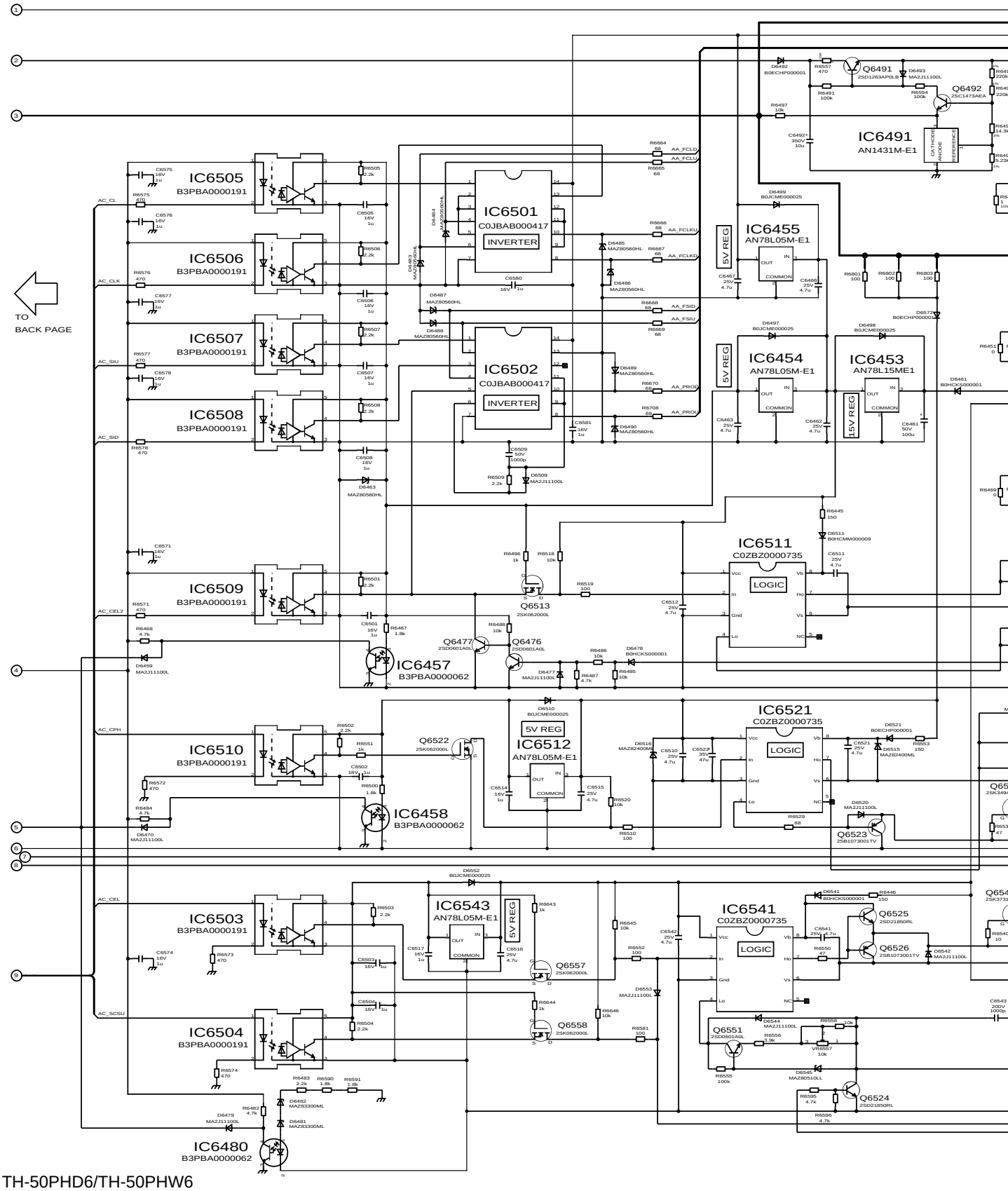


TH-50PHD6/TH-50PHW6
SC-BOARD (1 of 3) Schematic Diagram

5 6 7 8 9

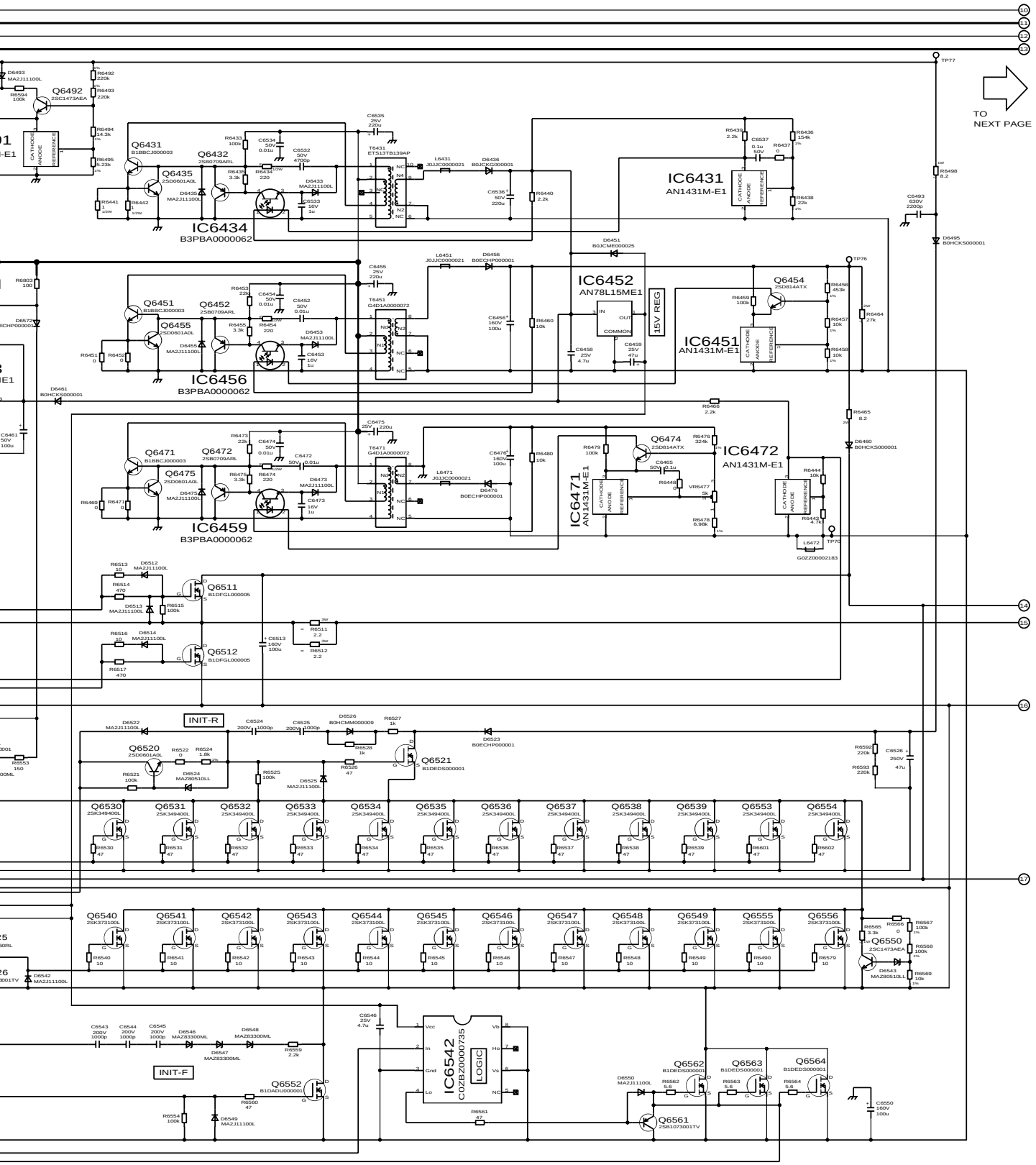
14.53. SC-Board (2 of 3) Schematic Diagram

SC-BOARD TXNSC10QMS (2/3)



TH-50PHD6/TH-50PHW6
SC-BOARD (2 of 3) Schematic Diagram

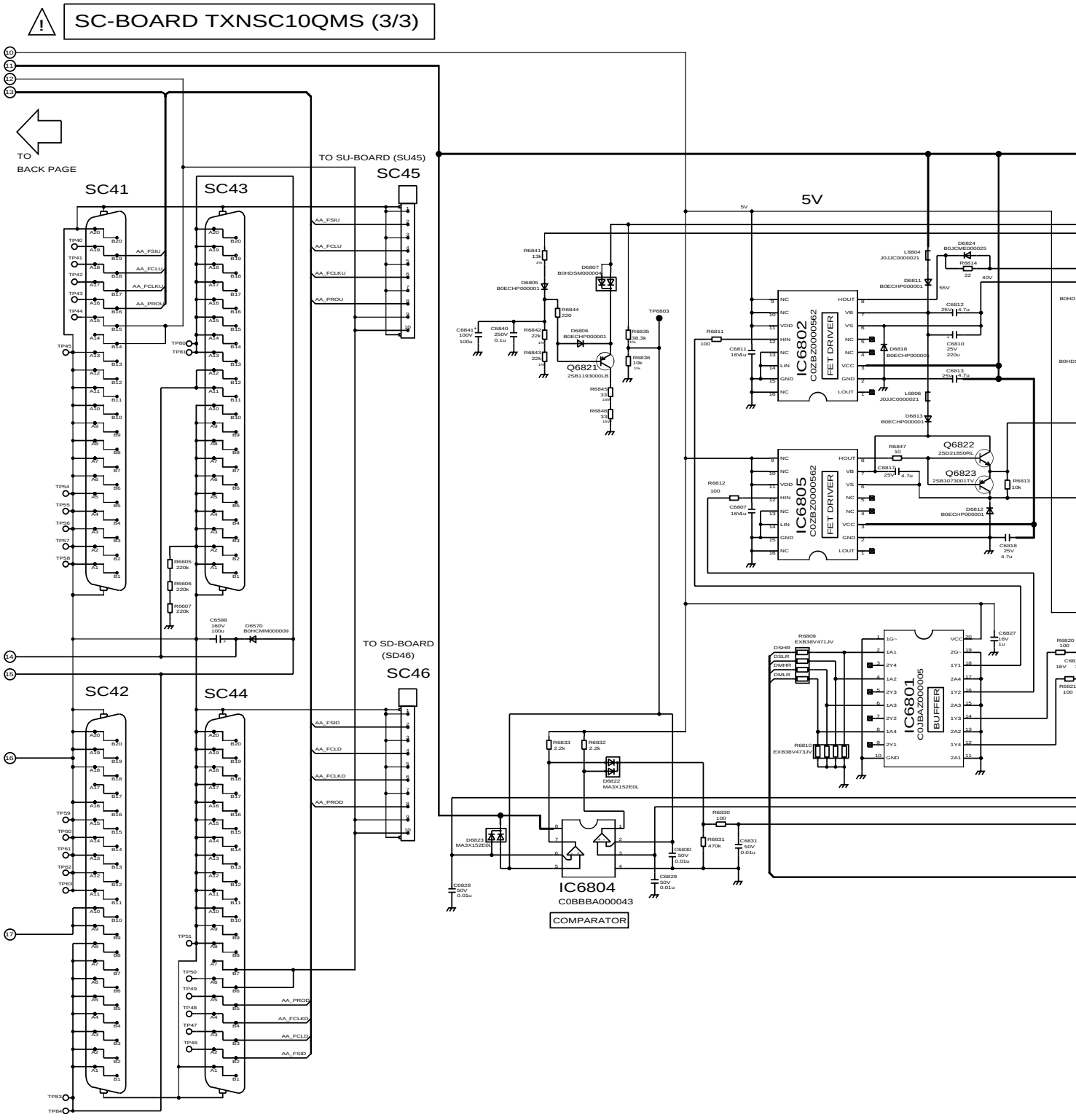
10 11 12 13 14



TH-50PHD6/TH-50PHW6
SC-BOARD (2 of 3) Schematic Diagram

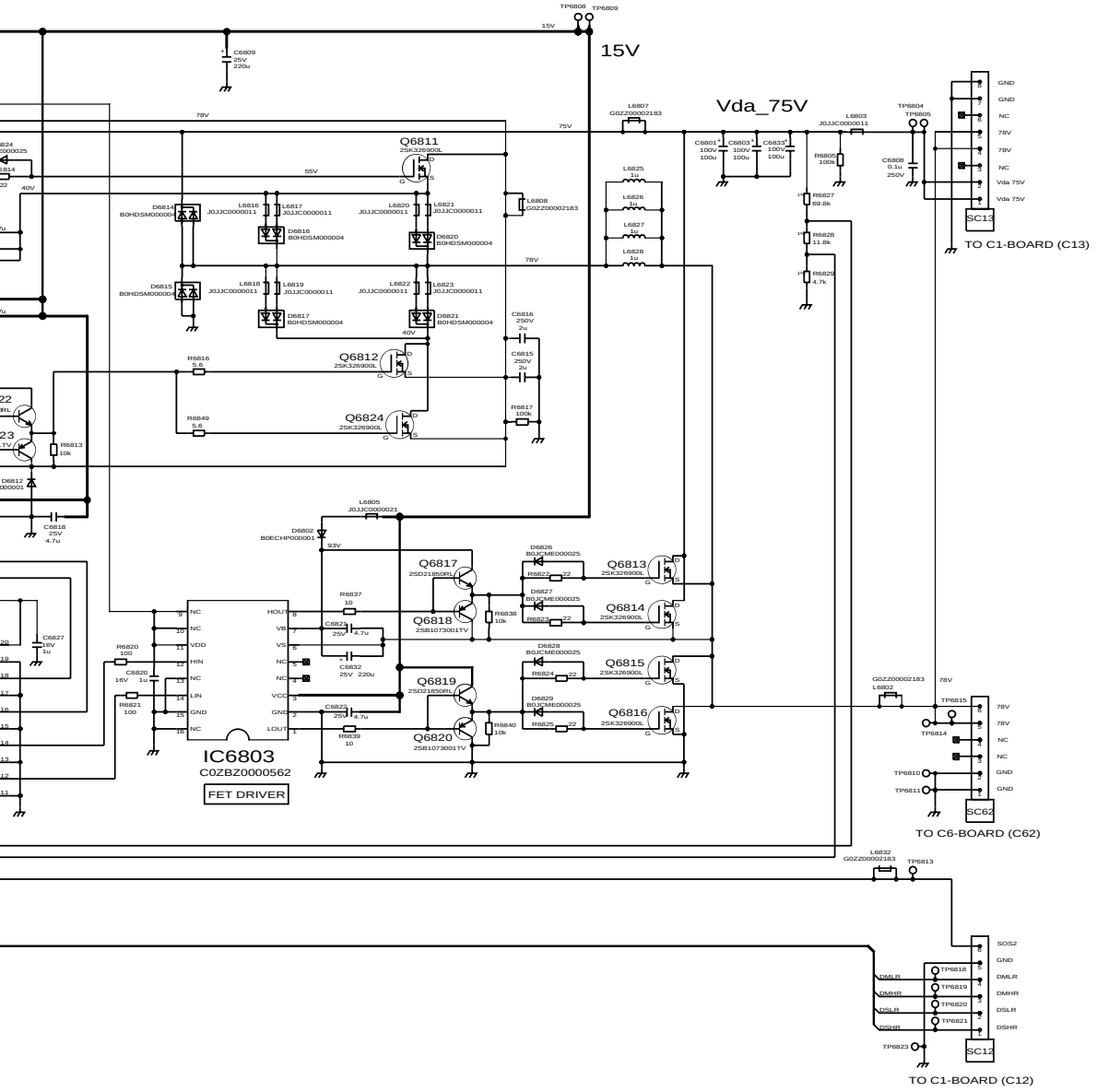
14 15 16 17 18

14.54. SC-Board (3 of 3) Schematic Diagram



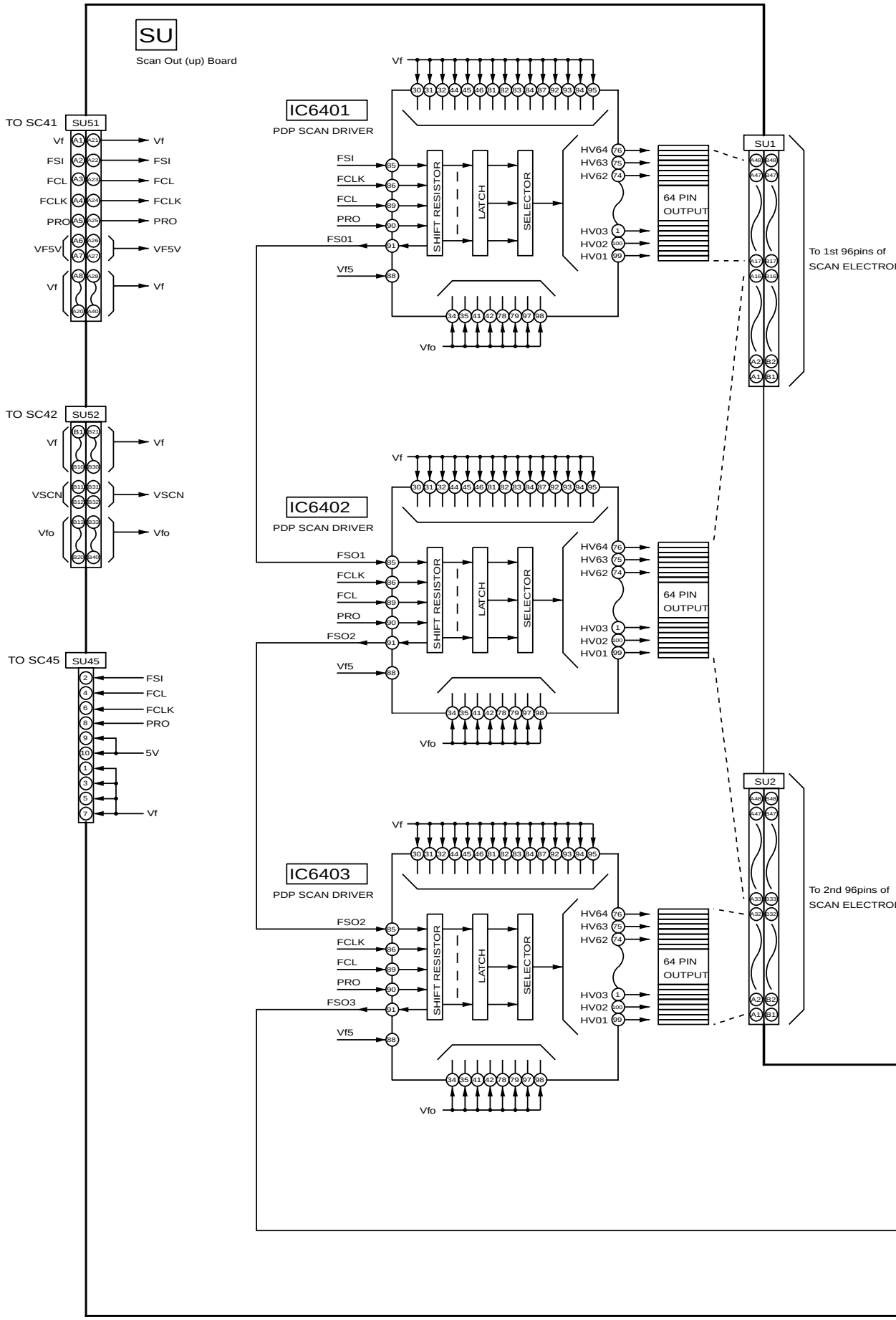
TH-50PHD6/TH-50PHW6
SC-BOARD (3 of 3) Schematic Diagram

19	20	21	22	23

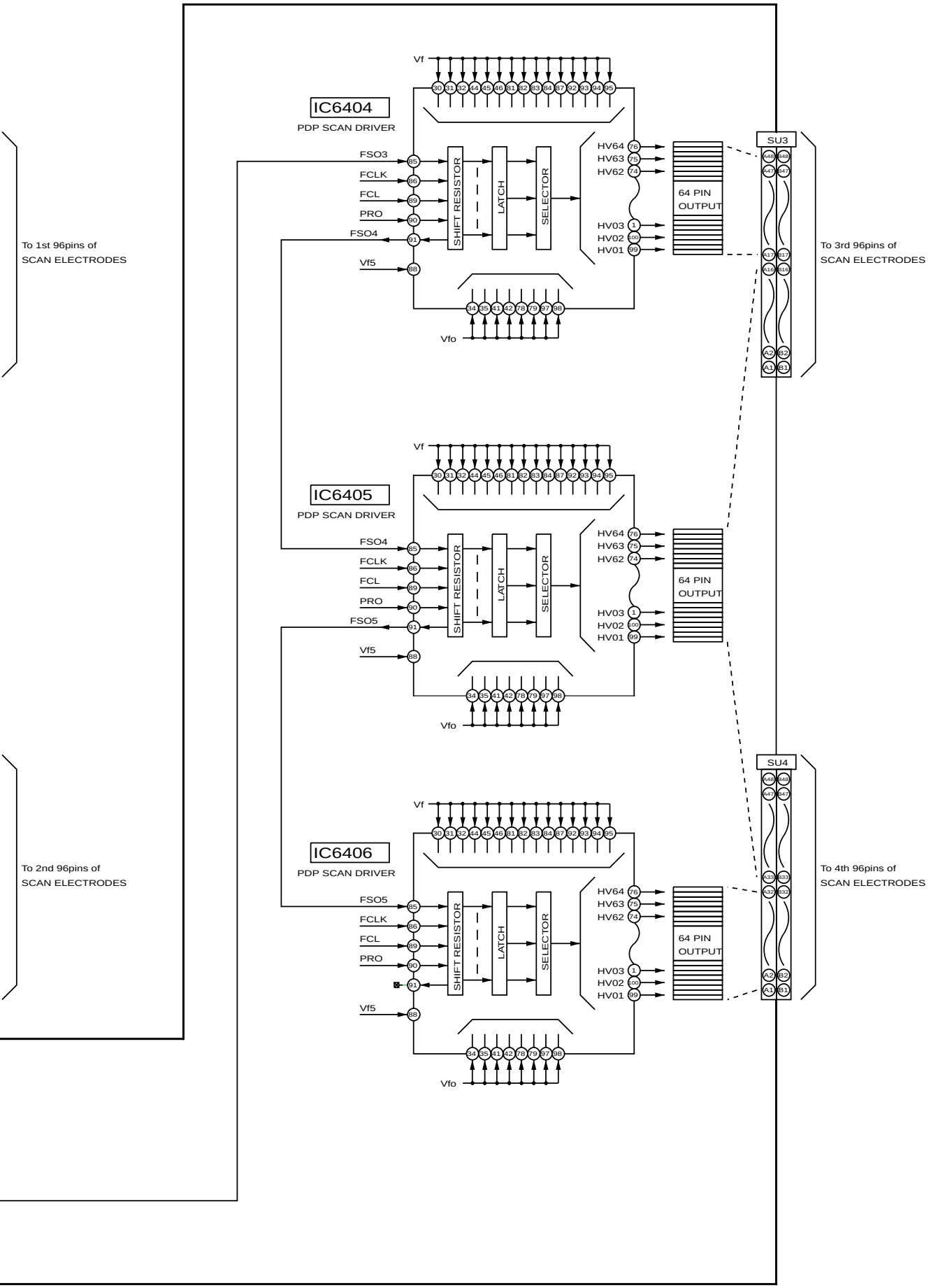


TH-50PHD6/TH-50PHW6
SC-BOARD (3 of 3) Schematic Diagram

14.55. SU-Board Block Diagram

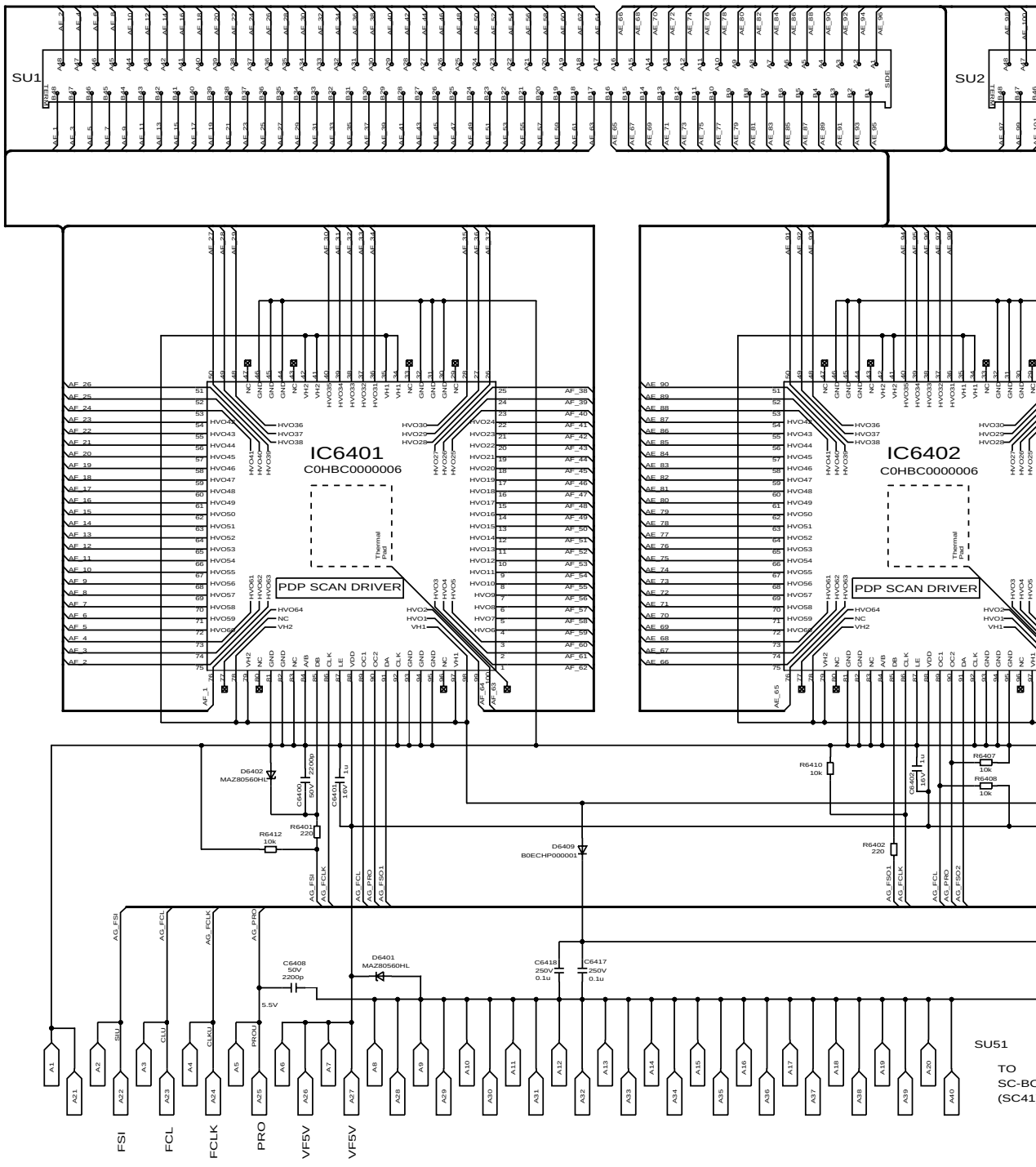


TH-50PHD6/TH-50PHW6 SU-BOARD Block Diagram

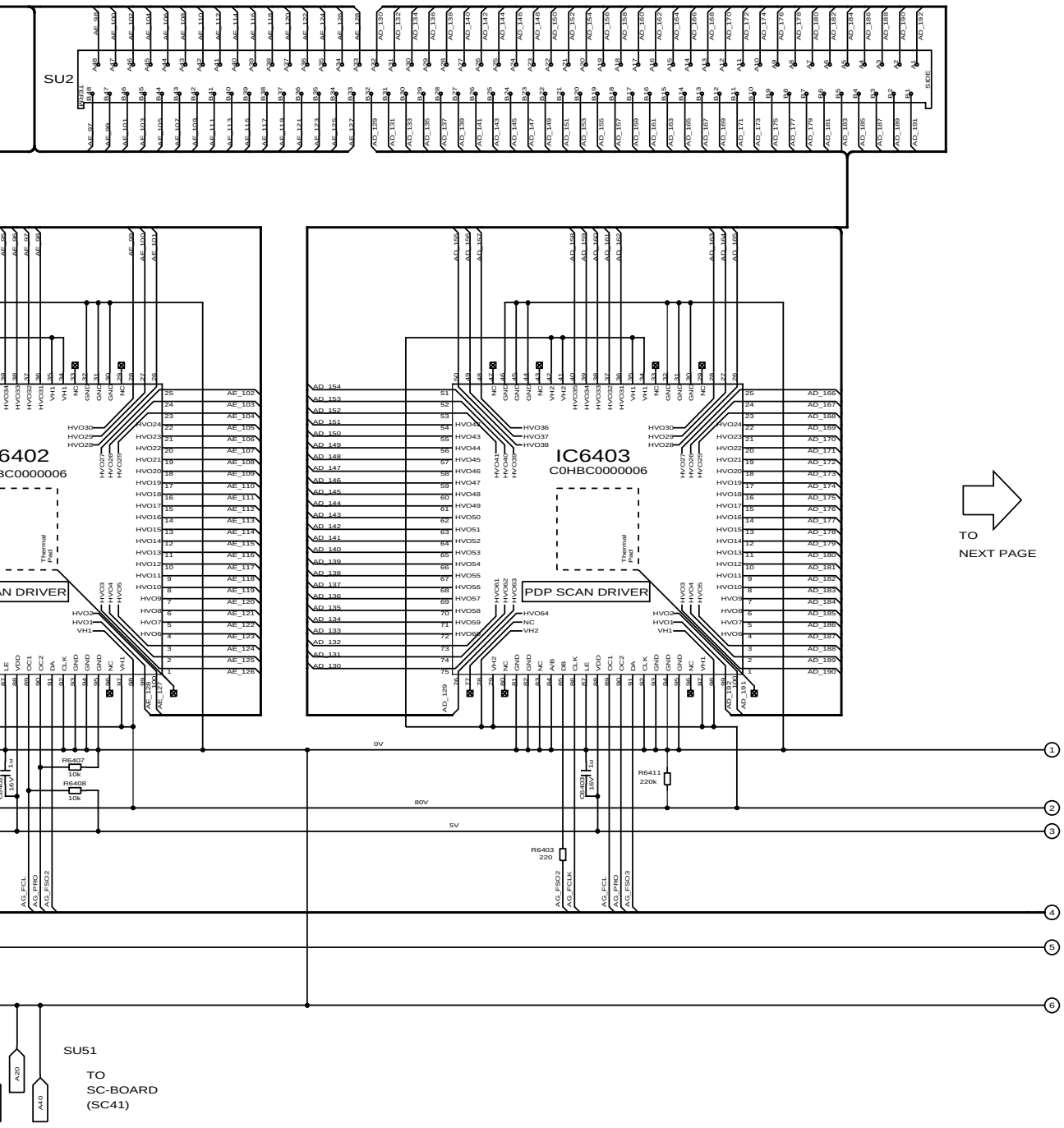

IC6404
PDP SCAN DRIVER
IC6405
PDP SCAN DRIVER
IC6406
PDP SCAN DRIVER
Vf
Vf5
Vfo
FSO3
FSO4
FSO5
FCLK
FCL
PRO
SHIFT RESISTOR
LATCH
SELECTOR
HV64
HV63
HV62
HV03
HV02
HV01
64 PIN
OUTPUT
SU3
SU4
To 1st 96pins of
SCAN ELECTRODES
To 2nd 96pins of
SCAN ELECTRODES
To 3rd 96pins of
SCAN ELECTRODES
To 4th 96pins of
SCAN ELECTRODES

14.56. SU-Board (1 of 2) Schematic Diagram

SU-BOARD TNPA2911 (1/2)



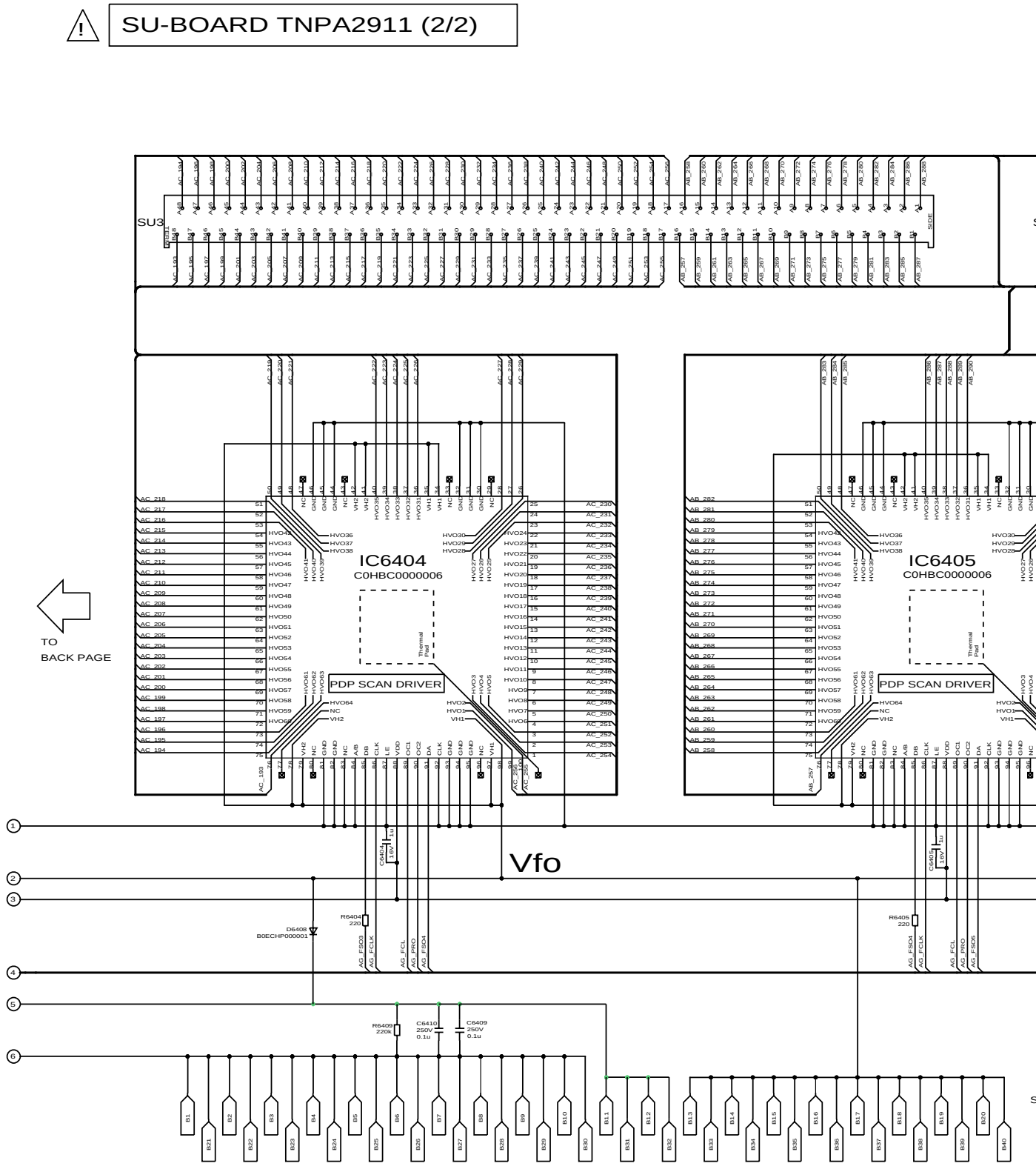
TH-50PHD6/TH-50PHW6
SU-BOARD (1 of 2) Schematic Diagram



TH-50PHD6/TH-50PHW6
SU-BOARD (1 of 2) Schematic Diagram

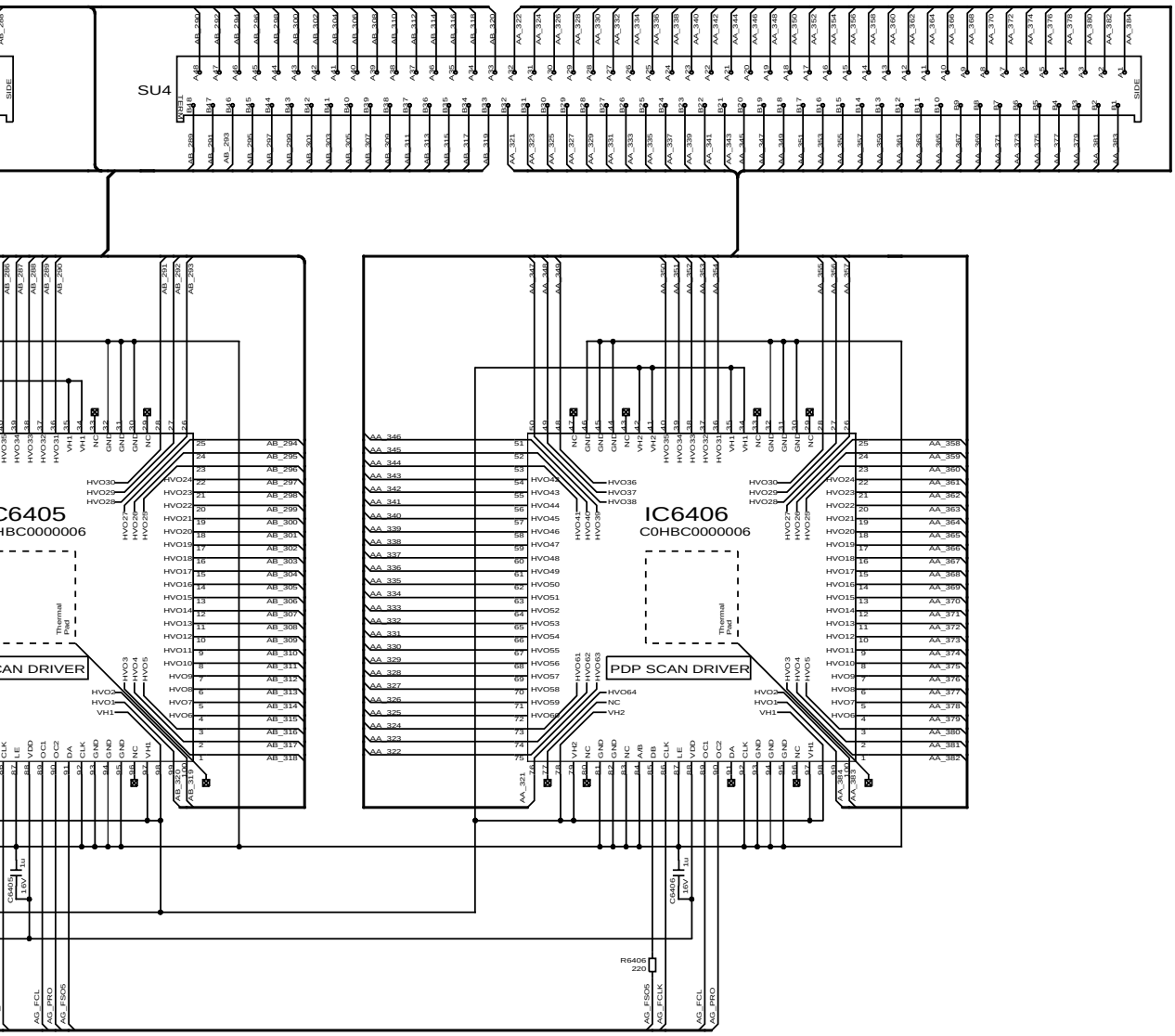
5 6 7 8

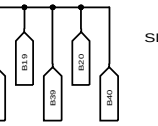
14.57. SU-Board (2 of 2) Schematic Diagram



TH-50PHD6/TH-50PHW6
SU-BOARD (2 of 2) Schematic Diagram

8 9 10 11 12





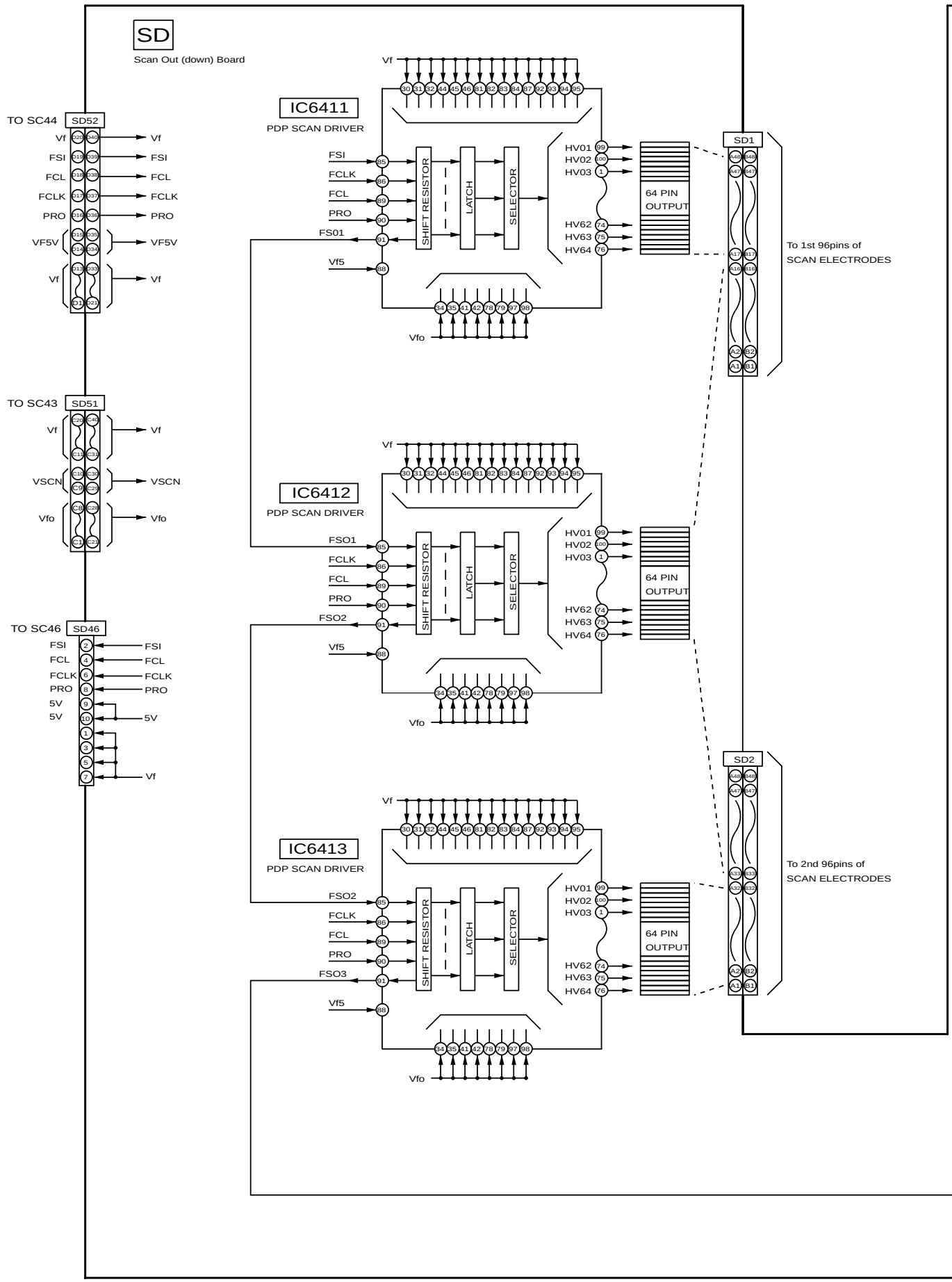
SD52

TO
SC-BOARD
(SC42)

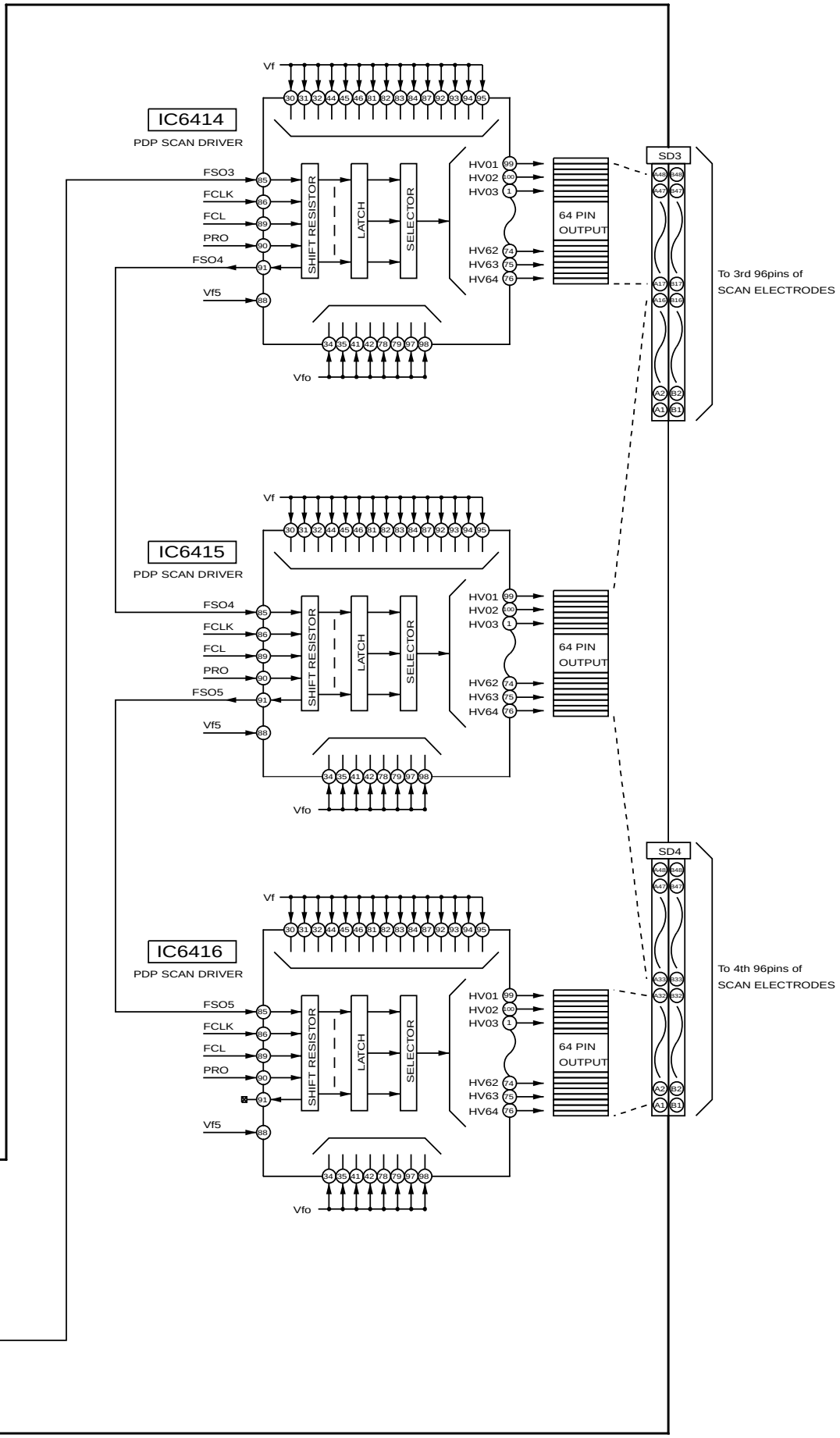
TH-50PHD6/TH-50PHW6
SU-BOARD (2 of 2) Schematic Diagram

12 13 14 15

14.58. SD-Board Block Diagram

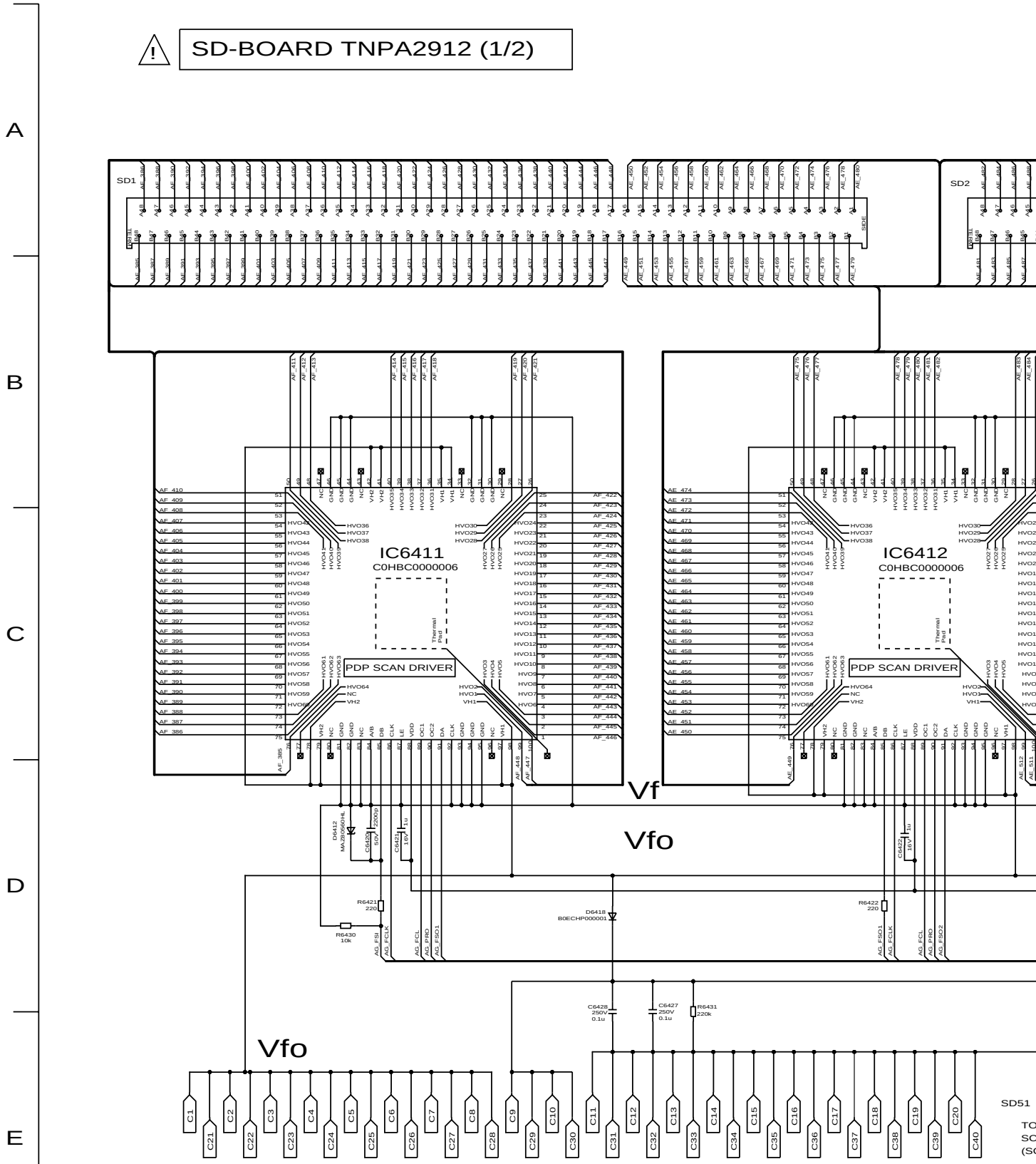


TH-50PHD6/TH-50PHW6 SC-BOARD Block Diagram

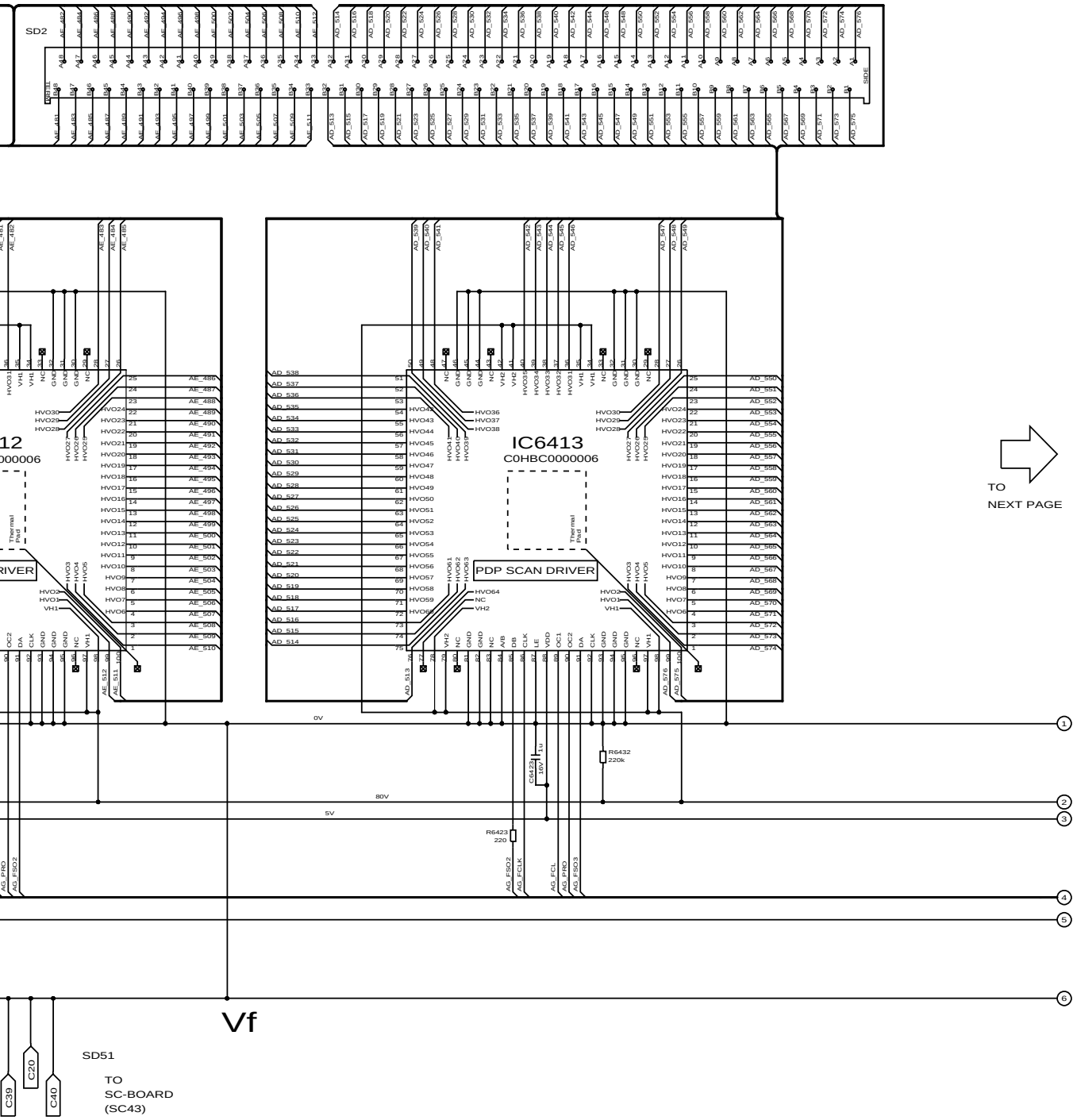


TH-50PHD6/TH-50PHW6 SC-BOARD Block Diagram

14.59. SD-Board (1 of 2) Schematic Diagram



TH-50PHD6/TH-50PHW6
SD-BOARD (1 of 2) Schematic Diagram

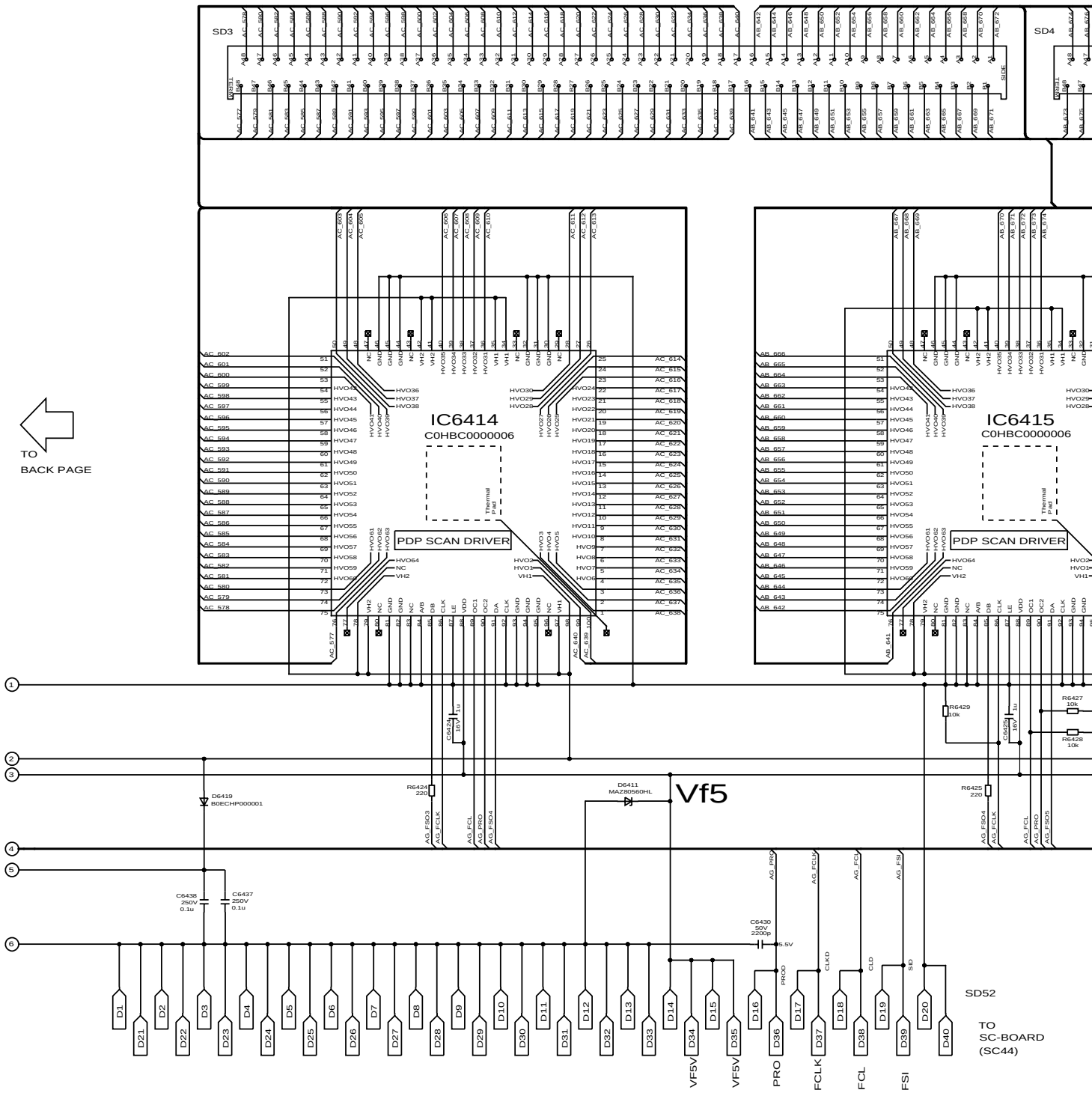


TH-50PHD6/TH-50PHW6
SD-BOARD (1 of 2) Schematic Diagram

5 6 7 8

14.60. SD-Board (2 of 2) Schematic Diagram

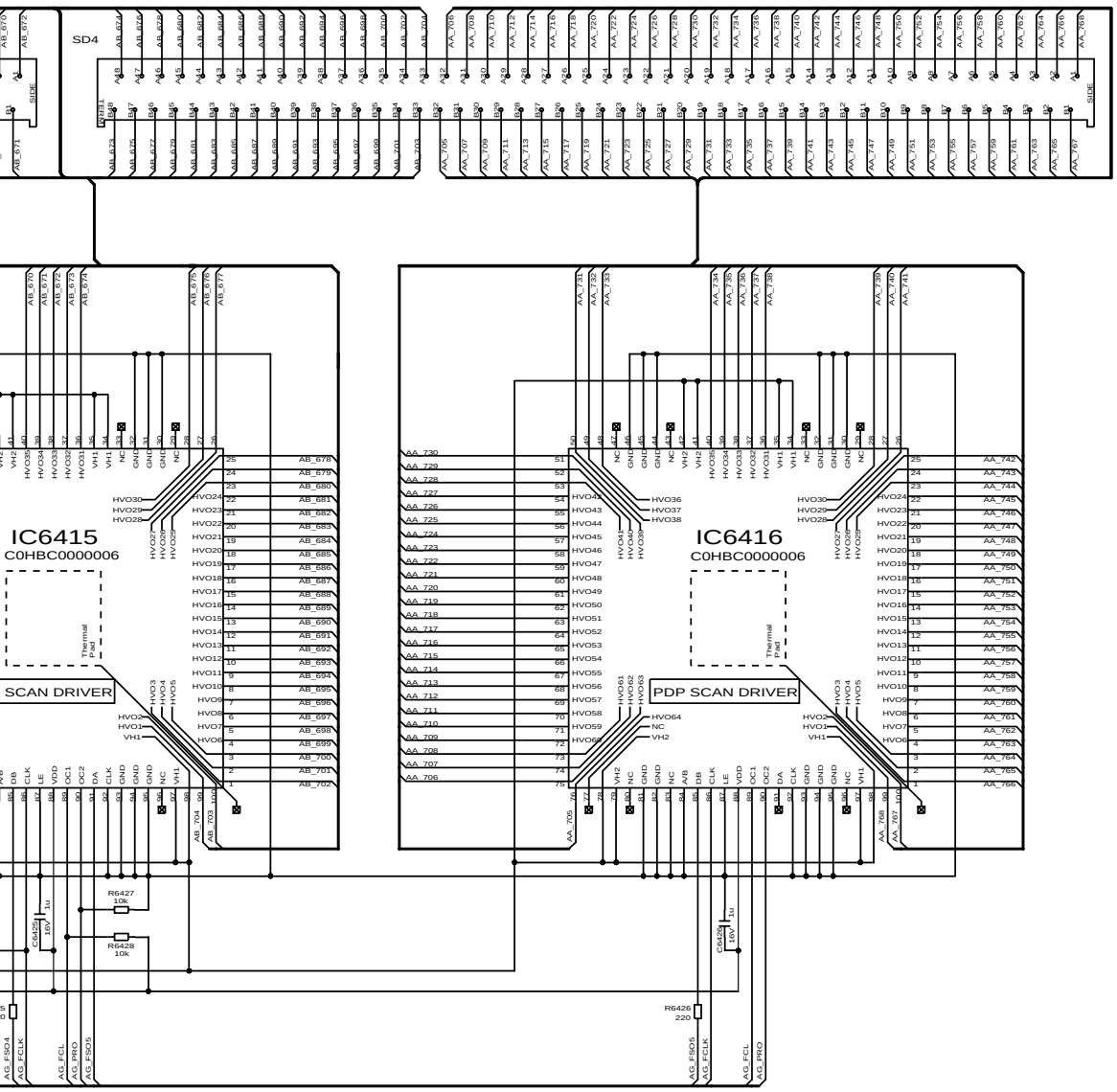
⚠ SD-BOARD TNPA2912 (2/2)



TH-50PHD6/TH-50PHW6
SD-BOARD (2 of 2) Schematic Diagram

8 9 10 11 12

DOWN



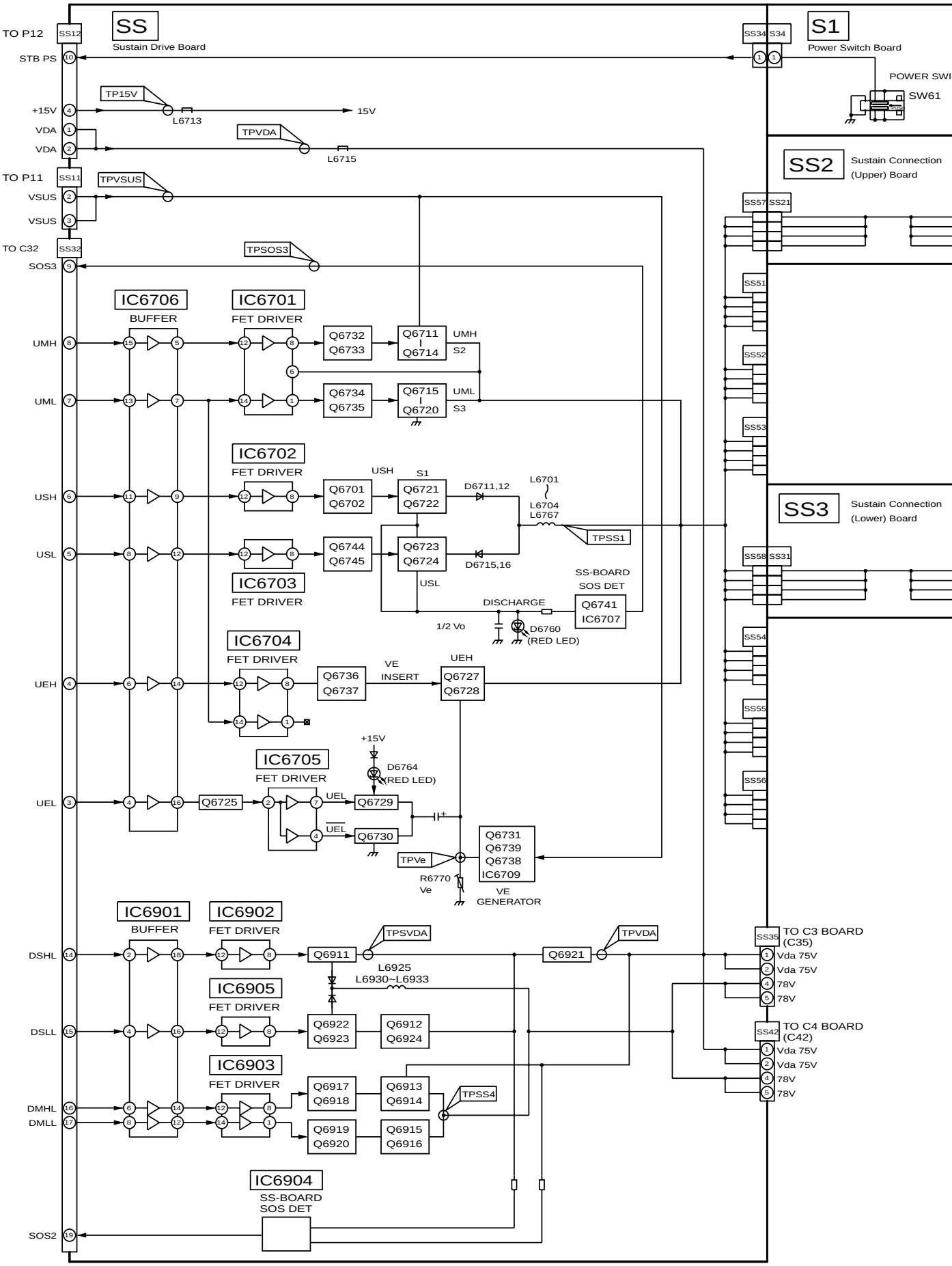
052

TO
SC-BOARD
(SC44)

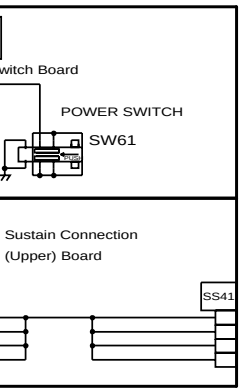
TH-50PHD6/TH-50PHW6
SD-BOARD (2 of 2) Schematic Diagram

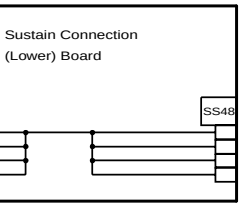
12 13 14 15

14.61. SS, S1, SS2 and SS3-Board Block Diagram



TH-50PHD6/TH-50PHW6 SS, S1, SS2 and SS3-BOARD Block Diagram

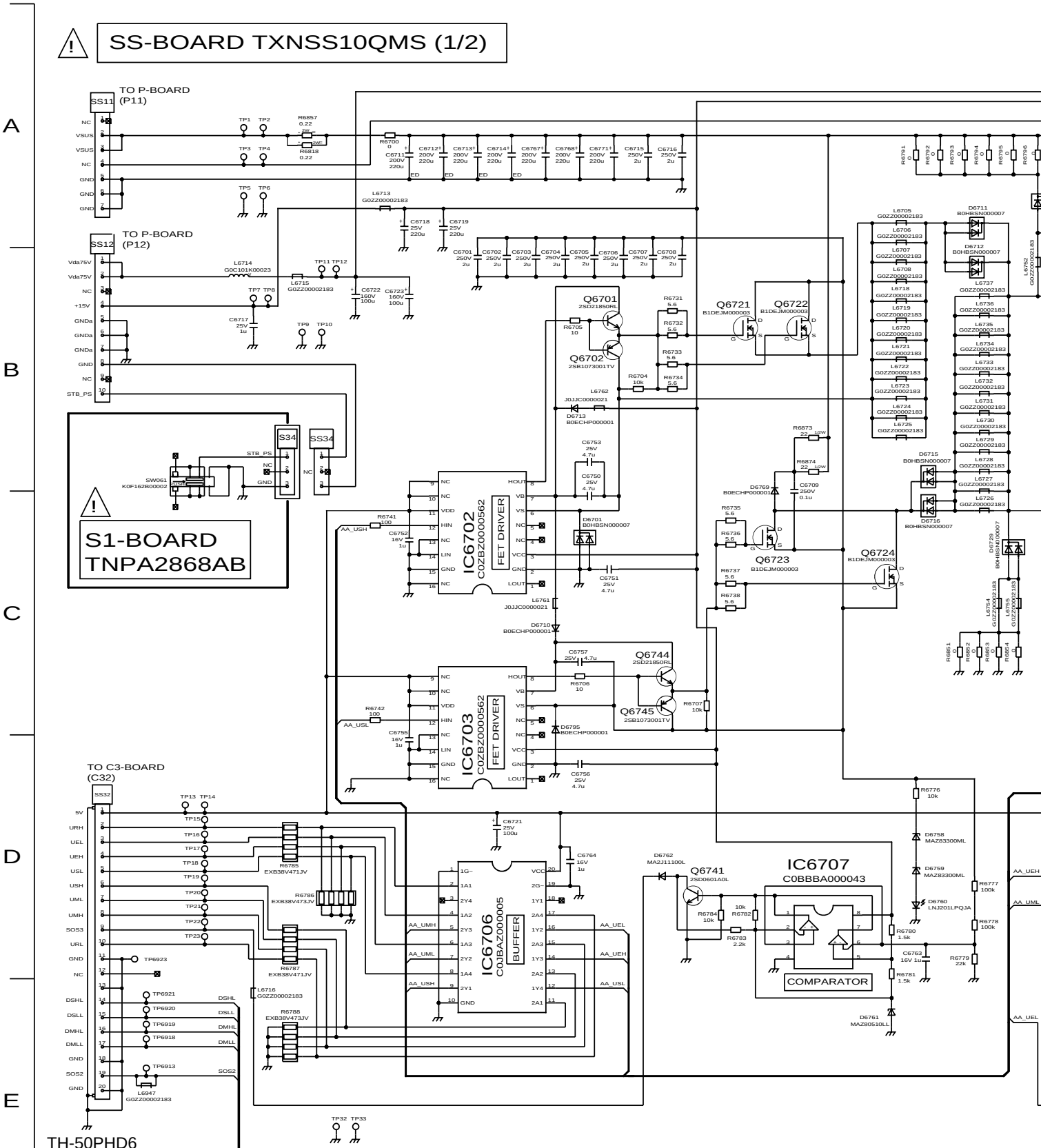

witch Board
POWER SWITCH
SW61
Sustain Connection
(Upper) Board
SS41

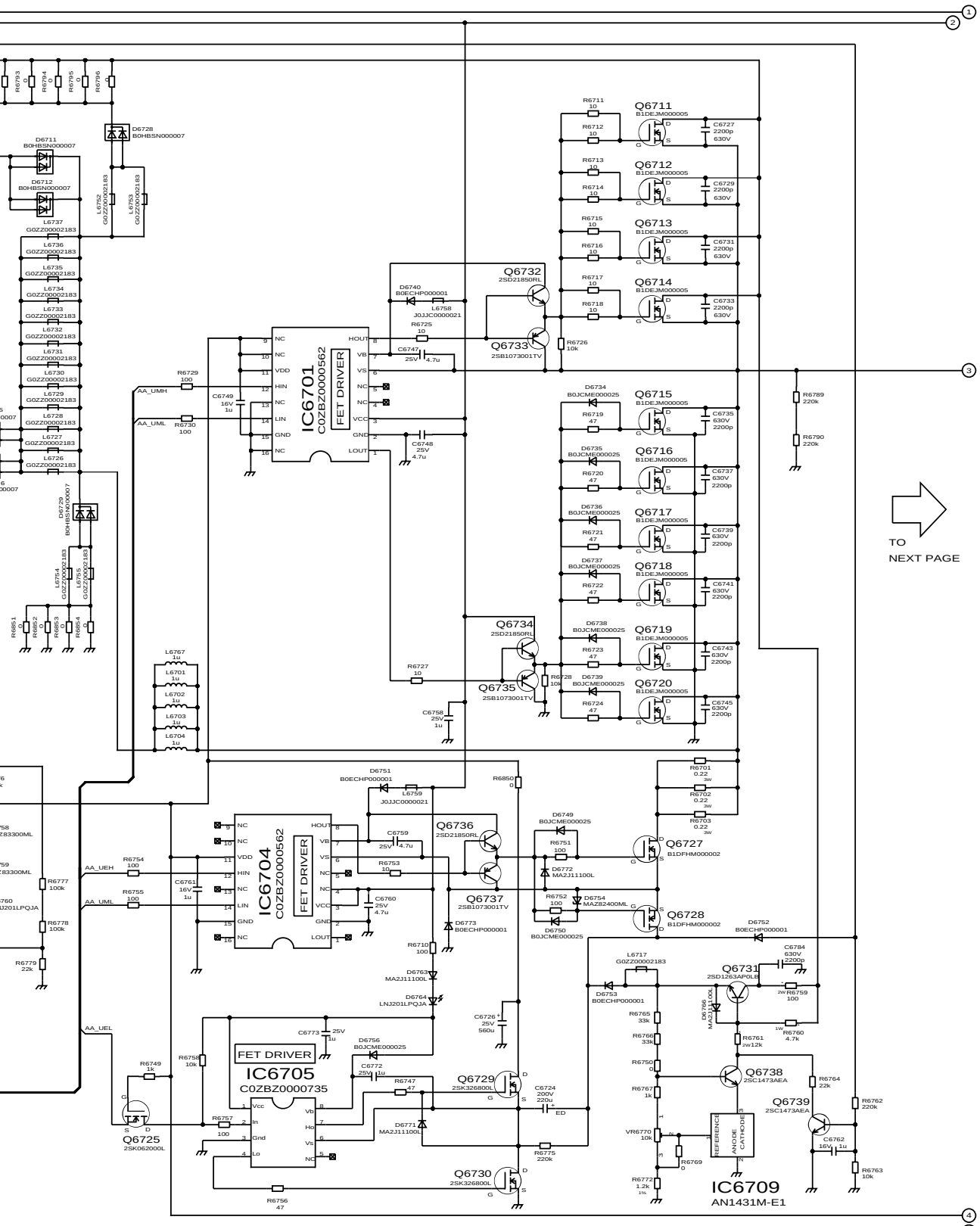

Sustain Connection
(Lower) Board
SS48

RD

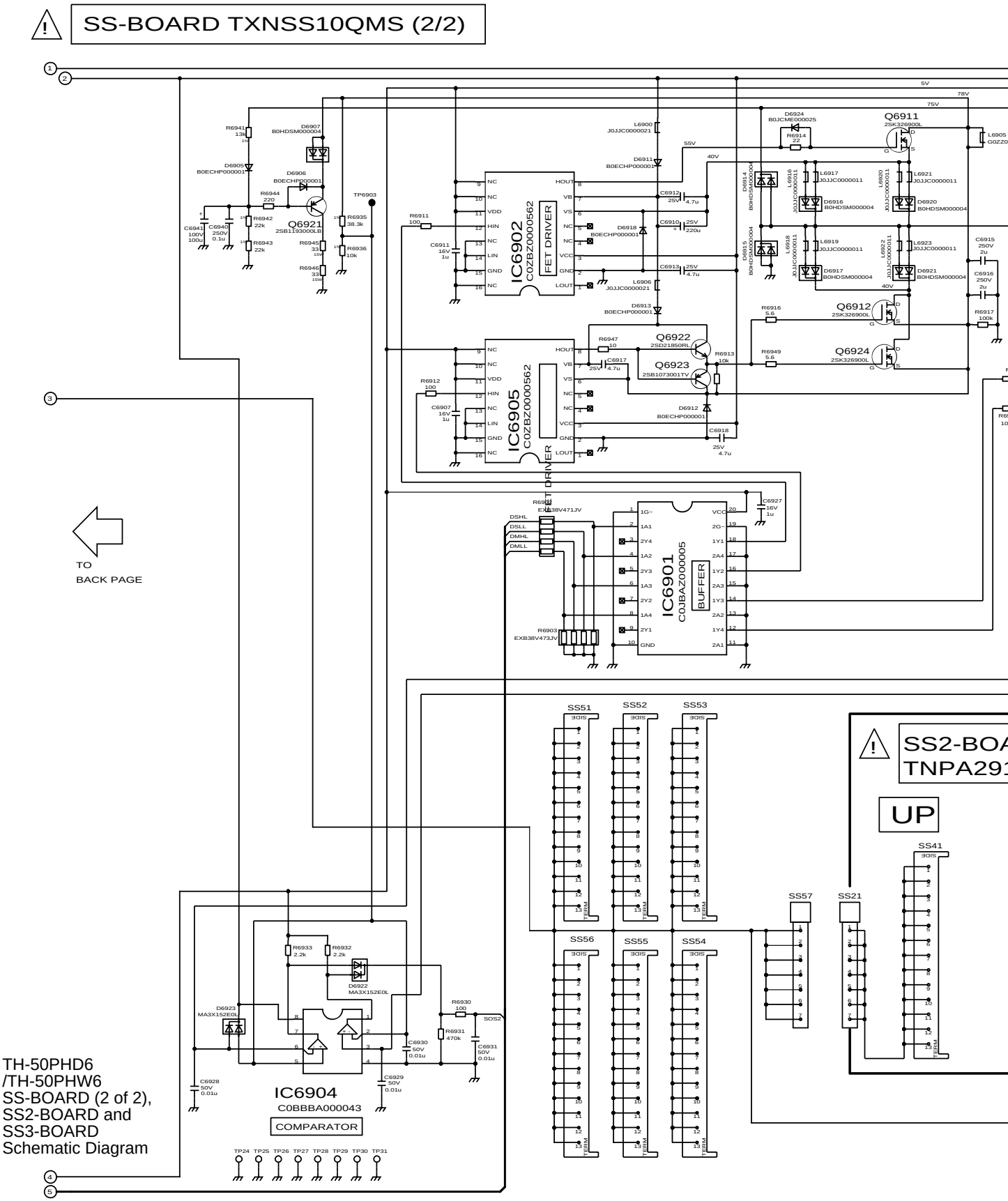
RD

14.62. SS-Board (1 of 2) and S1-Board Schematic Diagram

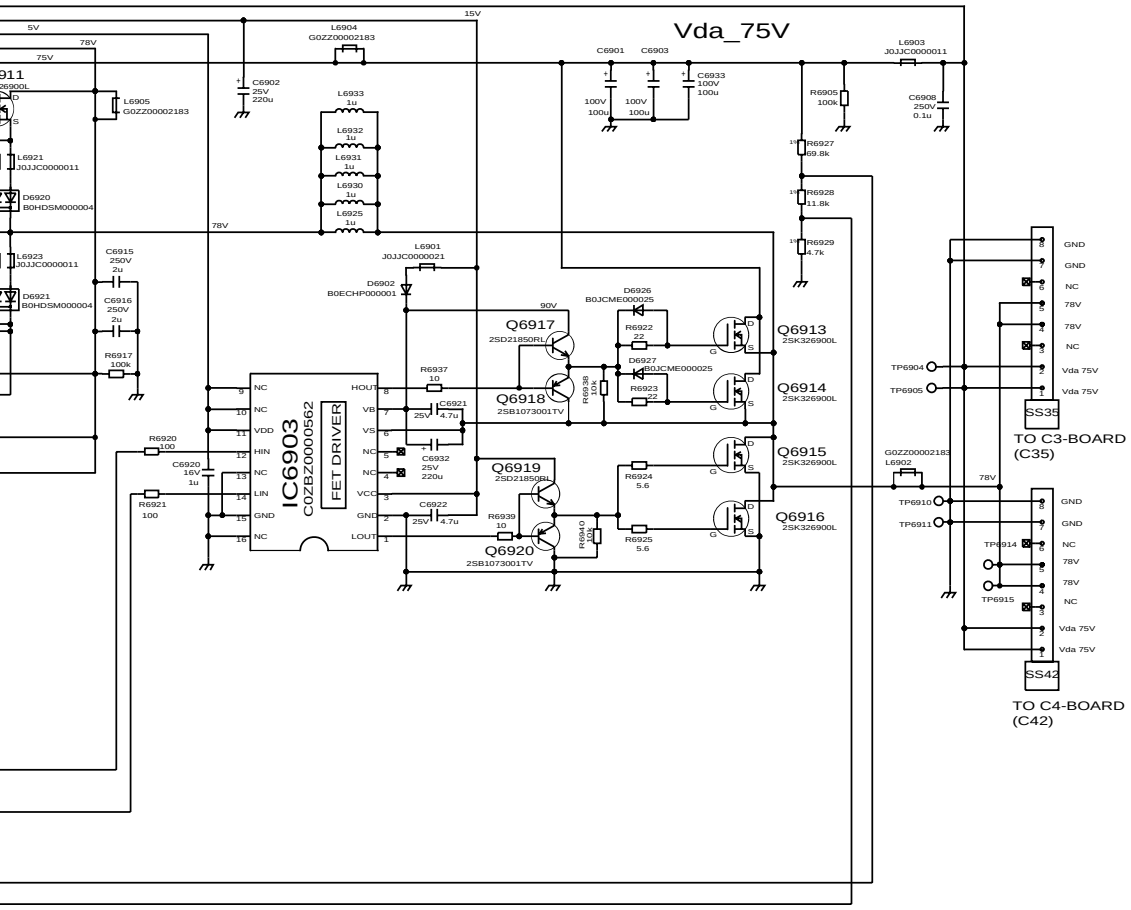


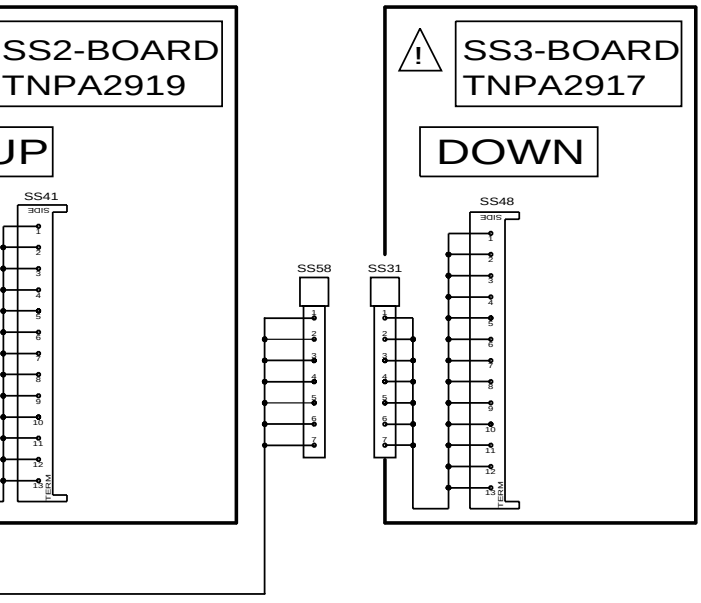

IC6701
C0ZBZ0000562
FET DRIVER
IC6704
C0ZBZ0000562
FET DRIVER
IC6705
C0ZBZ0000735
FET DRIVER
IC6709
AN1431M-E1
REFERENCE
ANODE
CATHODE
Q6711
Q6712
Q6713
Q6714
Q6715
Q6716
Q6717
Q6718
Q6719
Q6720
Q6732
Q6733
Q6734
Q6735
Q6736
Q6737
Q6725
Q6727
Q6728
Q6729
Q6730
Q6731
Q6738
Q6739
TO
NEXT PAGE

14.63. SS-Board (2 of 2), SS2 and SS3-Board Schematic Diagram



TH-50PHD6
/TH-50PHW6
SS-BOARD (2 of 2),
SS2-BOARD and
SS3-BOARD
Schematic Diagram

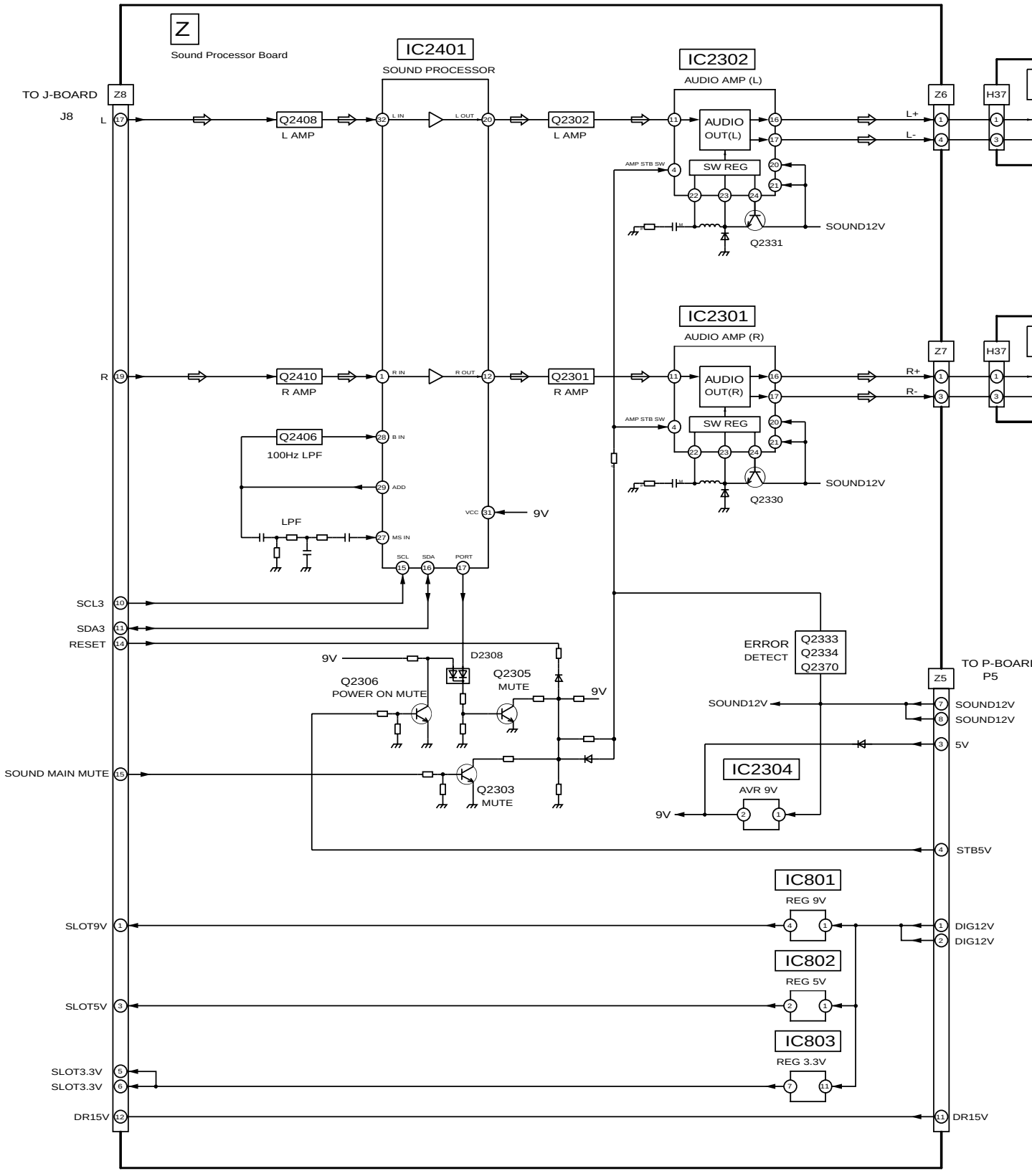




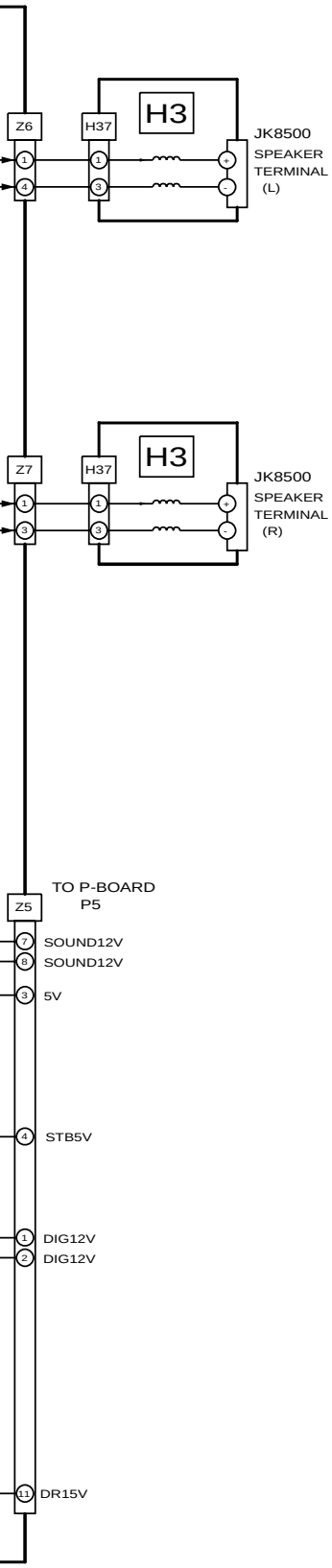
TH-50PHD6/TH-50PHW6
SS-BOARD (2 of 2), SS2-BOARD and SS3-BOARD Schematic Diagram

12 13 14 15

14.64. Z-Board and H3-Board Block Diagram

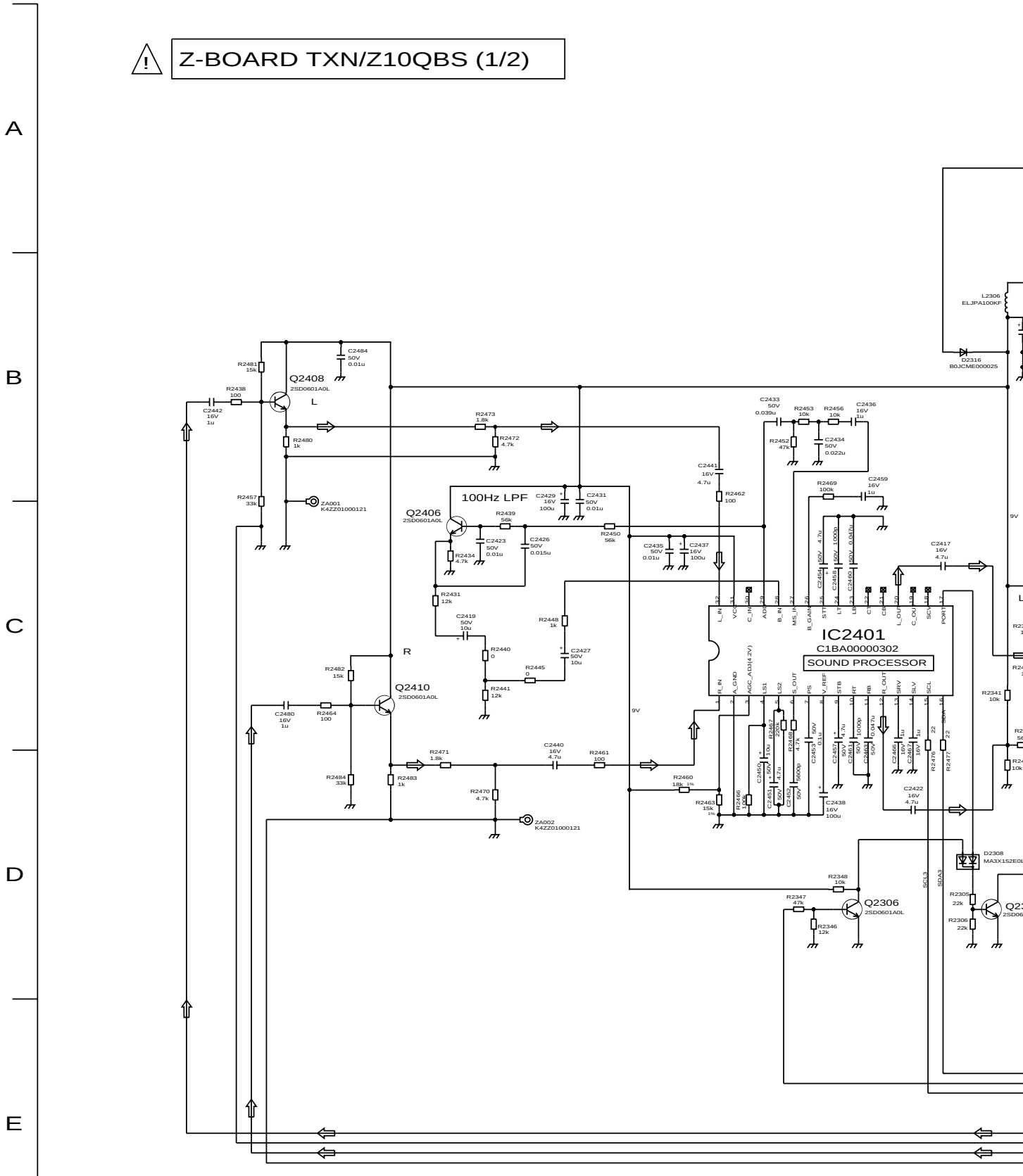


TH-50PHD6/TH-50PHW6
Z and H3-BOARD Block Diagram

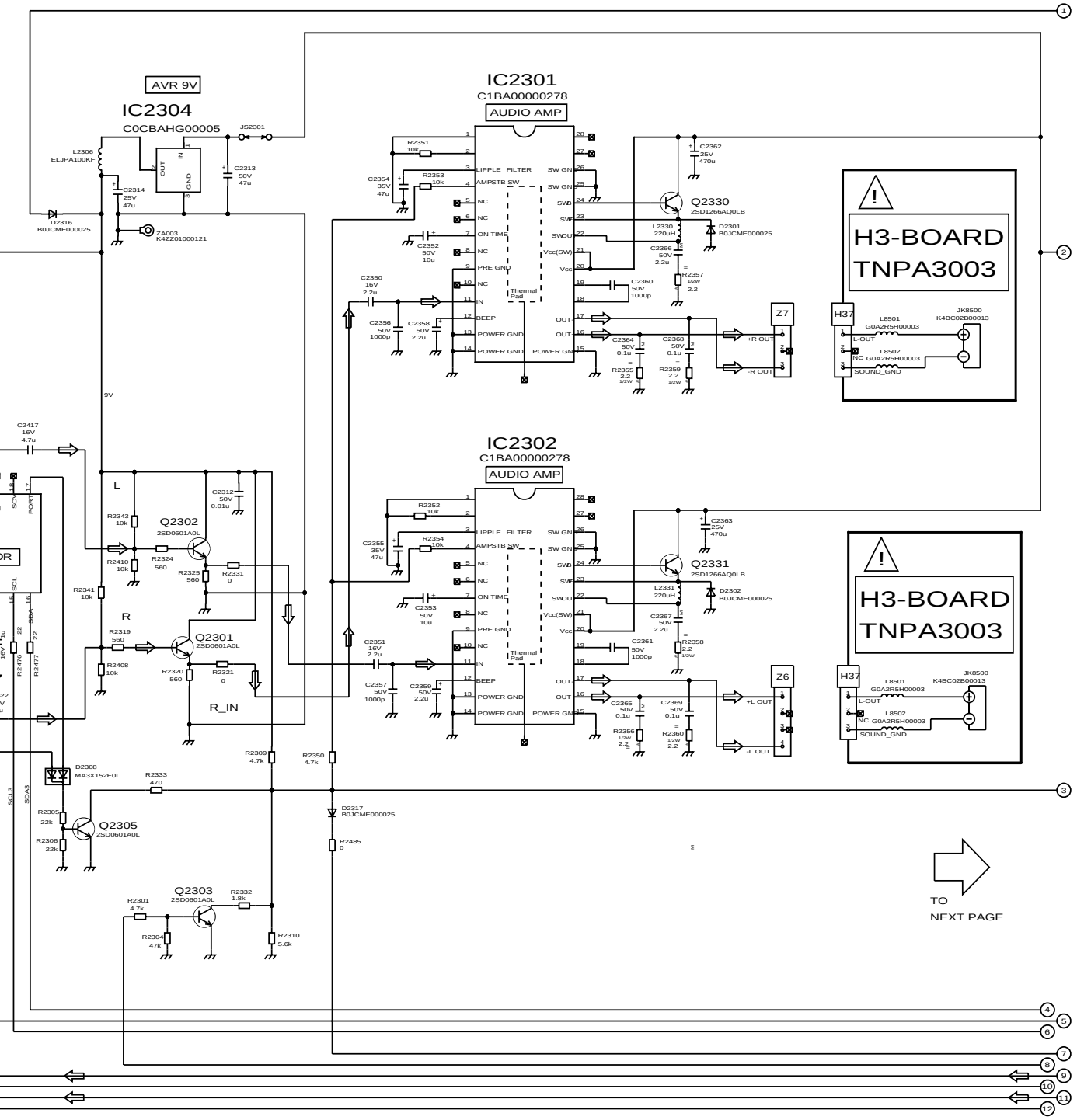


TH-50PHD6/TH-50PHW6
Z and H3-BOARD Block Diagram

14.65. Z-Board (1 of 2) and H3-Board Schematic Diagram



TH-50PHD6/TH-50PHW6
Z-BOARD (1 of 2) and H3-BOARD Schematic Diagram

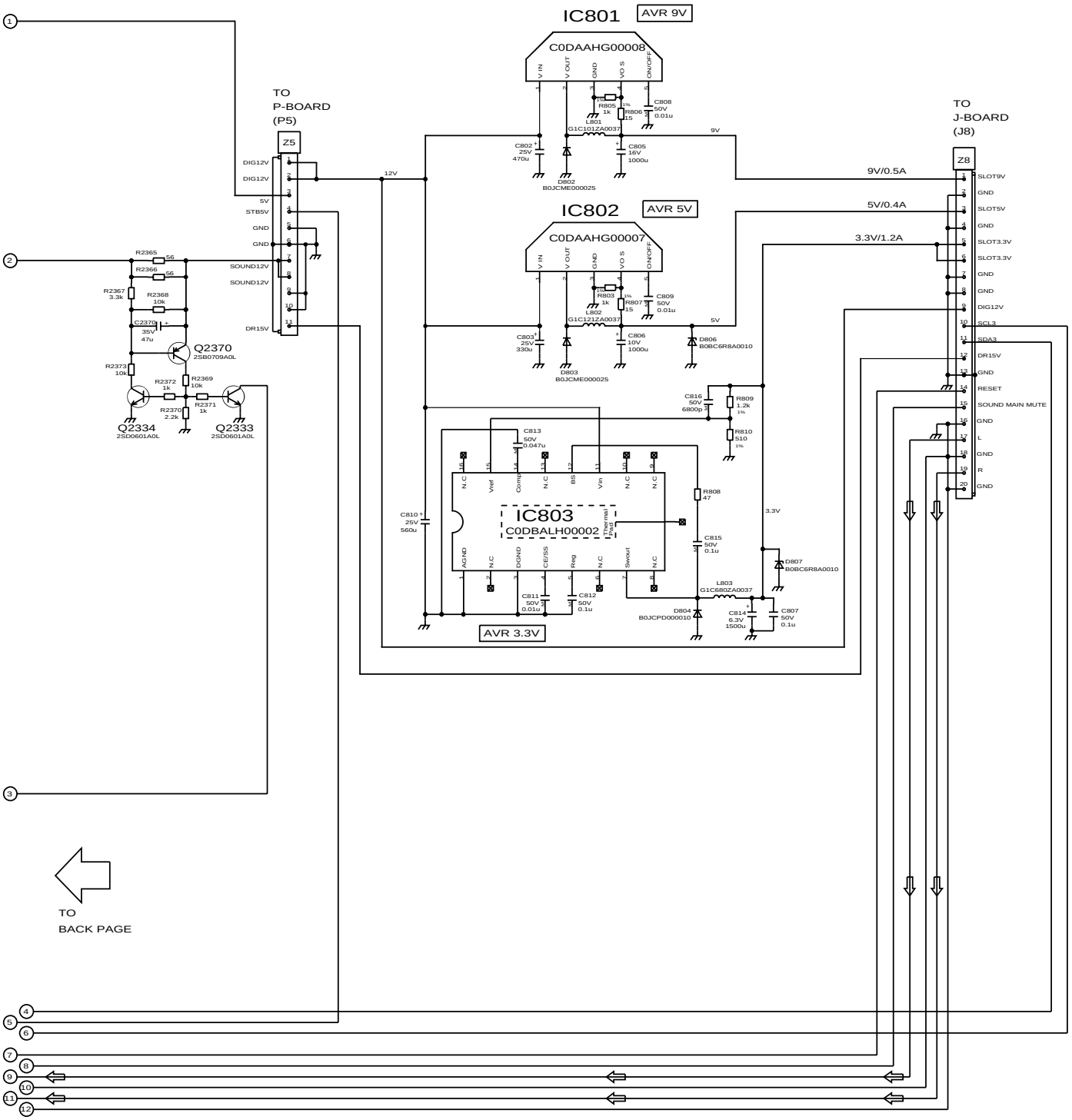


TH-50PHD6/TH-50PHW6
Z-BOARD (1 of 2) and H3-BOARD Schematic Diagram

5 6 7 8

14.66. Z-Board (2 of 2) Schematic Diagram

⚠ Z-BOARD TXN/Z10QBS (2/2)



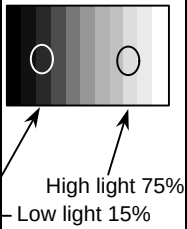
TH-50PHD6/TH-50PHW6
Z-BOARD (2 of 2) Schematic Diagram

8 | 9 | 10 | 11 | 12

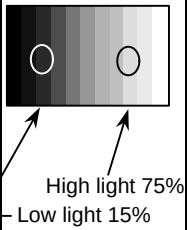
12 13 14 15

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	RGB(PC) Gray Scale Pattern  		Picture: Normal White balance: **Cool** Aspect: 16:9 COMPONENT /RGB-IN: RGB	PANEL W/B R cut off G cut off B cut off Chroma Control: Gun off RGB Sub Adjust: G Sub Bright 1 Chroma Control: Gun off RGB Sub Adjust: B Sub Bright 1 Chroma Control: Gun off RGB Sub Adjust: R Sub Bright 1	** Adjust at the dark room. 1) Set R,G and B cut off to " **80** ". 2) Set Gun off to "**5**". (Only green pixels can emit.) 3) Adjust G Sub bright to start some of green pixels emission at black 2% area and no emission at black 0% area. 4) Set Gun off to "**3**". (Only blue pixels can emit.) 5) Adjust B Sub bright to start some of blue pixels emission at black 2% area and no emission at black 0% area. 6) Set Gun off to "**6**". (Only red pixels can emit.) 7) Adjust R Sub bright to start some of red pixels emission at black 2% area and no emission at black 0% area.
2	Component (525i, 525p, 625i, 720i or 1080i) Gray Scale Pattern  		Picture: Normal White balance: **Cool** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change input to Component signal. 2) Repeat procedure 1) to 7) of RGB input signal.

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	RGB(PC) Gray Scale Pattern  		Picture: Normal White balance: **Cool** Aspect: 16:9 COMPONENT /RGB-IN: RGB	PANEL W/B R cut off G cut off B cut off Chroma Control: Gun off RGB Sub Adjust: G Sub Bright 2 Chroma Control: Gun off RGB Sub Adjust: B Sub Bright 2 Chroma Control: Gun off RGB Sub Adjust: R Sub Bright 2	** Adjust at the dark room. 1) Press the SWAP button, change input to signal path. 2) Set R,G and B cut off to " 3) Set Gun off to "**5**". (Only green pixels can emit.) 4) Adjust G Sub bright to start some of green pixels emission at black 2% area and no emission at black 0% area. 5) Set Gun off to "**3**". (Only blue pixels can emit.) 6) Adjust B Sub bright to start some of blue pixels emission at black 2% area and no emission at black 0% area. 7) Set Gun off to "**6**". (Only red pixels can emit.) 8) Adjust R Sub bright to start some of red pixels emission at black 2% area and no emission at black 0% area.
2	Component (525i, 525p, 625i, 720i or 1080i) Gray Scale Pattern  		Picture: Normal White balance: **Cool** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change input to Component signal. 2) Repeat procedure 1) to 7) of RGB input signal.

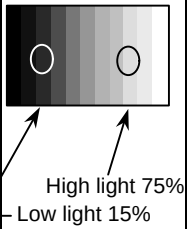
	INPUT	Equipment	Setting	Alignment menu	Procedure
1	NTSC Gray Scale Pattern  	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m_2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m_2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-01. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m_2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-01. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. Fig. -01
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

Color Temp.	x	y
Cool(Hi)	0.276	0.276
Normal(Mid)	0.288	0.296
Warm(Low)	0.313	0.329

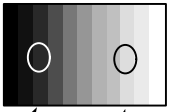
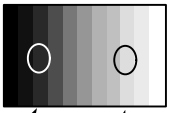
	INPUT	Equipment	Setting	Alignment menu	Procedure
1	PAL Gray Scale Pattern  	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-02. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-02. 9) Repeat procedure 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. Color Temp. / x / y Cool(Hi) / 0.276 / 0.276 Normal(Mid) / 0.288 / 0.296 Warm(Low) / 0.313 / 0.329 Fig. -02
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

		Equipment	Setting	Alignment menu	Procedure
5			Picture: Normal Aspect: 16:9 White balance: **Cool** **Normal** **Warm**		1) Write down each color temaparature of R,G,B drive and Cut off data as follows. 2) Input SECAM signal. 3) Copy PAL R,G,B drive and cut off data of each white balance mode to SECAM position.
	SECAM signal				

White Balance	Cool	Normal	Warm
R Drive			
G Drive			
B Drive			
R Cut off			
G Cut off			
B Cut off			

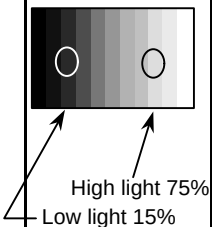
	INPUT	Equipment	Setting	Alignment menu	Procedure
1	PC Gray Scale Pattern  	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-03. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-03. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. Fig. -03
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

Color Temp.	x	y
Cool(Hi)	0.276	0.276
Normal(Mid)	0.288	0.296
Warm(Low)	0.313	0.329

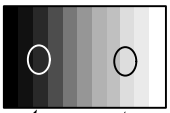
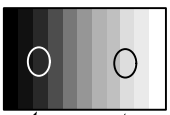
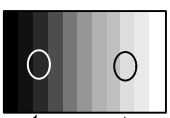
	INPUT	Equipment	Setting	Alignment menu	Procedure
5	RGB Gray Scale Pattern  		Picture: Normal Aspect: 16:9 White balance: **Cool** **Normal** **Warm**		1) Write down each color temaparature of R,G,B drive and Cut off data as follows. 2) Input RGB signal. 3) Copy PC R,G,B drive and cut off data of each white balance mode to RGB position.
6	DVI Gray Scale Pattern  		Picture: Normal Aspect: 16:9 White balance: **Cool** **Normal** **Warm**		1) Write down each color temaparature of R,G,B drive and Cut off data as follows. 2) Input DVI signal. 3) Copy PC R,G,B drive and cut off data of each white balance mode to DVI position.

White Balance	Cool	Normal	Warm
R Drive			
G Drive			
B Drive			
R Cut off			
G Cut off			
B Cut off			

White Balance	Cool	Normal	Warm
R Drive			
G Drive			
B Drive			
R Cut off			
G Cut off			
B Cut off			

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	HD (720i or 1080i) Gray Scale Pattern  	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m_2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m_2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-04. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m_2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-04. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. Fig. -04
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

Color Temp.	x	y
Cool(Hi)	0.276	0.276
Normal(Mid)	0.288	0.296
Warm(Low)	0.313	0.329

	INPUT	Equipment	Setting	Alignment menu	Procedure
5	RGB Gray Scale Pattern  High light 75% Low light 15%		Picture: Normal Aspect: 16:9 White balance: **Cool** **Normal** **Warm**		1) Write down each color temaparature of R,G,B drive and Cut off data as follows. 2)Change input signal to 525i and 525p. 3) Copy HD drive and cut off data of each white balance mode to each signals position.
6	RGB Gray Scale Pattern  High light 75% Low light 15%		Picture: Normal Aspect: 16:9 White balance: **Cool** **Normal** **Warm**		1) Write down each color temaparature of R,G,B drive and Cut off data as follows. 2)Change input signal to 525p and 625i. 3) Copy HD drive and cut off data of each white balance mode to each signals position.
7	RGB Gray Scale Pattern  High light 75% Low light 15%		Picture: Normal Aspect: 16:9 White balance: **Cool** **Normal** **Warm**		1) Write down each color temaparature of R,G,B drive and Cut off data as follows. 2)Change input signal to 625i and 625p. 3) Copy HD drive and cut off data of each white balance mode to each signals position.

White Balance	Cool	Normal	Warm
R Drive			
G Drive			
B Drive			
R Cut off			
G Cut off			
B Cut off			

White Balance	Cool	Normal	Warm
R Drive			
G Drive			
B Drive			
R Cut off			
G Cut off			
B Cut off			

White Balance	Cool	Normal	Warm
R Drive			
G Drive			
B Drive			
R Cut off			
G Cut off			
B Cut off			

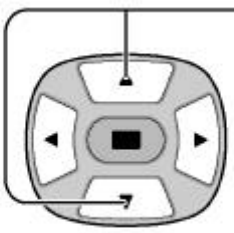
How to access the Option menu

1

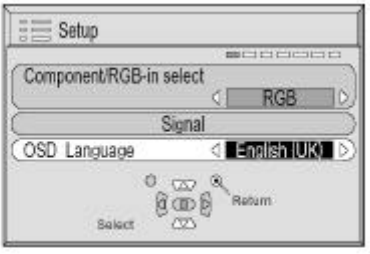


Press to display the Setup menu.

2



Press to select OSD Language.



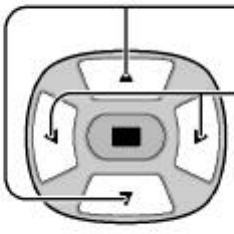
3



Press down for more than 3 seconds to display the Option menu.

Setting the Option menus

1



Press to select the desired item.

Press to select the desired function.

The option menu will disappear 60 seconds after operation.

2

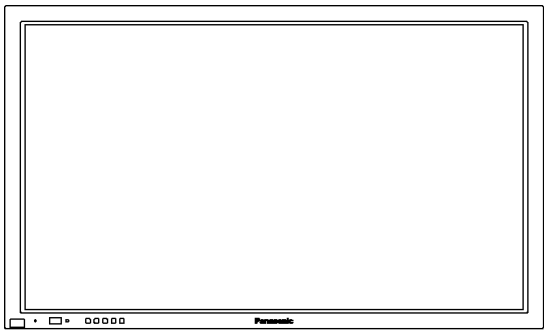


Press to exit Option menu.

ORDER NO. ITD0309034C0
D10 Canada: B07

Service Manual

High Definition Plasma Display



TH-50PHW6BX
TH-50PHW6EX
TH-50PHD6EX
TH-50PHD6BX
TH-50PHD6UY

GPH6D2 Chassis

Specifications

Power Source:	AC120V 50/60Hz (UY version)
	AC220-240V 50/60Hz
	(Except UY version model)
Power Consumption:	445 W
	Save off 1.6 W, Save on 0.9 W (stand-by condition)
	(UY version)
	Save off 1.9 W, Save on 1.1 W (stand-by condition)
	(Except UY version model)
	0.2 W (Power off condition)
	(UY version model)
	0.4 W (Power off condition)
	(Except UY version model)
Plasma Display panel:	Drive method AC type
	16:9 aspect ratio
Contrast Ratio	3000:1
Screen size:	1,106 mm (W) × 622 mm (H)
	1,269 mm (diagonal)
	No. of pixels
	1,049,088 (1,366 (W) × 768 (H))
	[4,098 × 768 dots]
Operating condition:	
Temperature	34 °F - 104 °F (0 °C - 40 °C)
Humidity	20 % - 80 %
	Horizontal scanning frequency 15 - 110kHz
	Vertical scanning frequency 48 - 120Hz

Connection terminals:	
AV	
Video in	1.0 Vp-p (75-ohm)
S-VIDEO IN (MINI DIN 4PIN)	Y: 1 Vp-p (75-ohm), C: 0.286 Vp-p (75-ohm)
AUDIO IN (RCA PIN JACK × 2)	0.5 Vrms (high impedance)
COMPONENT/RGB	
Y/G	1.0 Vp-p/composite (75-ohm)
	0.7 Vp-p/non-composite (75-ohm)
P_B/B	0.7 Vp-p (75-ohm)
P_R/R	0.7 Vp-p (75-ohm)
HD	1.0 - 5.0 Vp-p (high impedance)
VD	1.0 - 5.0 Vp-p (high impedance)
AUDIO IN (RCA PIN JACK×2)	0.5 Vrms (high impedance)
PC	
(HIGH-DENSITY D-SUB15PIN)	R,G,B/0.7 Vp-p (75-ohm)
	HD, VD/1.0 - 5.0 Vp-p (high impedance)
AUDIO IN (M3 JACK)	0.5Vrms (high impedance)
SERIAL	
EXTERNAL CONTROL TERMINAL (D-SUB9PIN)	RS-232C COMPATIBLE
SPEAKERS (External speakers) (6Ω)	16W [8W+8W] (10% THD)

Panasonic®

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Dimensions (W×H×D): 1,210 mm × 724 mm 95 mm

Weight (Mass) approx. 43.5 kg net (main unit only)
approx. 48.1 kg net (with speakers)

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1 Applicable signals

VIDEO input

	signal name	horizontal frequency(kHz)	vertital frequency(Hz)
1	NTSC	15.734	59.95
2	PAL	15.625	50
3	PAL60	15.734	59.95
4	SECAM	15.625	50
5	Modified NTSC	15.734	59.95

∗ Mark:
By installing the optional Terminal Board.

Applicable input signals for PC Input (D-sub 15P) (* Mark)

	signal name	horizontal frequency(kHz)	vertital frequency(Hz)	RGB	PC	when Multi Screen and Digital Zoom
1	525(480)/60i	15.73	59.94	∗	∗	∗
2	525(480)/60p	31.47	59.94	∗	∗	∗
3	625(575)/50i	15.63	50.00	∗	∗	∗
4	625(575)/50p	31.25	50.00	∗	∗	∗
5	750(720)/60p	45.00	60.00	∗	∗	∗
6	750(720)/50p	37.50	50.00	∗	∗	∗
7	1,125(1,080)/60i	33.75	59.94	∗	∗	∗
8	1,125(1,080)/50i	28.13	50.00	∗	∗	∗
9	1,125(1,080)/24p	27.00	24.00	∗	∗	
10	1,125(1,080)/24sF	27.00	48.00	∗	∗	∗
11	1,250(1,080)/50i	31.25	50.00	∗	∗	∗
12	640×400@70 Hz	31.47	70.00		∗	∗
13	640×480@60 Hz	31.47	59.94		∗	∗
14	Macintosh13"(640×480)	35.00	66.67		∗	∗
15	640×480@75 Hz	37.50	75.00		∗	∗
16	852×480@60 Hz	31.50	60.00		∗	∗
17	800×600@60 Hz	37.88	60.32		∗	∗
18	800×600@75 Hz	46.88	75.00		∗	∗
19	800×600@85 Hz	53.67	85.06		∗	∗
20	Macintosh16"(832×624)	49.73	74.55		∗	∗
21	1,024×768@60 Hz	48.36	60.00		∗	∗
22	1,024×768@70 Hz	56.48	70.07		∗	∗
23	1,024×768@75 Hz	60.02	75.03		∗	∗
24	1,024×768@85 Hz	68.68	85.00		∗	∗
25	Macintosh21"(1,152×870)	68.68	75.06		∗	
26	1,280×1,024@60 Hz	63.98	60.02		∗	
27	1,280×1,024@75 Hz	79.98	75.03		∗	
28	1,280×1,024@85 Hz	91.15	85.02		∗	
29	1,600×1,200@60 Hz	75.00	60.00		∗	
30	1,0660×600@60 Hz	37.88	60.32		∗	∗
31	1,366×768@60 Hz	48.36	60.00		∗	∗

2 Safety Precautions

2.1. General Guidelines

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

2.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

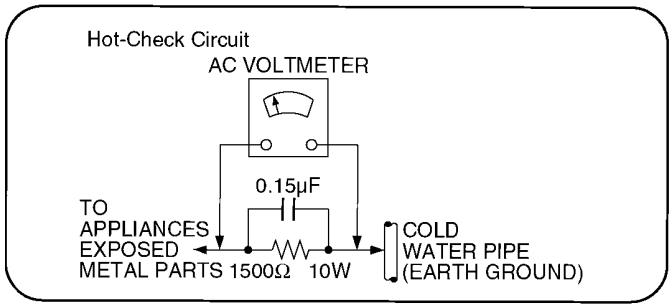


Figure 1

2.1.2. Leakage Current Hot Check (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15µF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

3 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

4 About lead free solder (PbF)

Note: Lead is listed as (Pb) in the periodic table of elements.

In the information below, Pb will refer to Lead solder, and PbF will refer to Lead Free Solder.

The Lead Free Solder used in our manufacturing process and discussed below is (Sn+Ag+Cu).

That is Tin (Sn), Silver (Ag) and Copper (Cu) although other types are available.

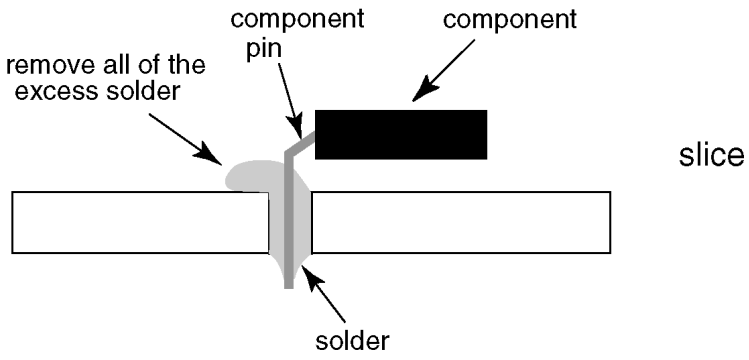
This model uses Pb Free solder in it's manufacture due to environmental conservation issues. For service and repair work, we'd suggest the use of Pb free solder as well, although Pb solder may be used.

PCBs manufactured using lead free solder will have the PbF within a leaf Symbol PbF stamped on the back of PCB.

Caution

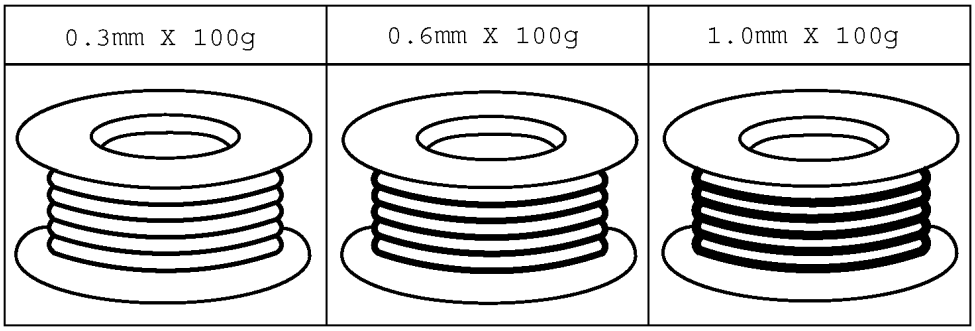
- Pb free solder has a higher melting point than standard solder. Typically the melting point is 50 ~ 70 °F (30~40 °C) higher. Please use a high temperature soldering iron and set it to 700 ± 20 °F (370 ± 10 °C).
- Pb free solder will tend to splash when heated too high (about 1100 °F or 600 °C).

  If you must use Pb solder, please completely remove all of the Pb free solder on the pins or solder area before applying Pb solder. If this is not practical, be sure to heat the Pb free solder until it melts, before applying Pb solder.
- After applying PbF solder to double layered boards, please check the component side for excess solder which may flow onto the opposite side. (see figure below)



Suggested Pb free solder

There are several kinds of Pb free solder available for purchase. This product uses Sn+Ag+Cu (tin, silver, copper) solder. However, Sn+Cu (tin, copper), Sn+Zn+Bi (tin, zinc, bismuth) solder can also be used.



5 PCB Structure sheet of GPH6D2 chassis

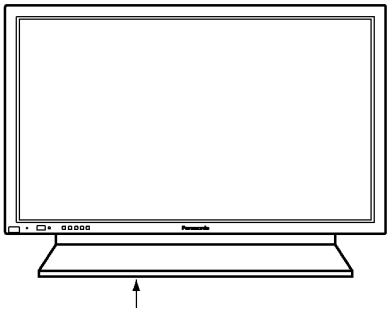
Board Name	Function	Remarks
D	Digital Signal Processor	1
J	Slot Interface & SYNC processor	1
Z	Audio out, DC-DC converter	
SS	Sustain Out	1
SC	Scan out	1
SU	Sustain connection (Upper)	1
SD	Sustain connection (Lower)	1
C1	Data Drive (Upper Right)	
C2	Data Drive (Upper Center)	
C3	Data Drive (Lower Left)	
C4	Data Drive (Lower Left)	
C5	Data Drive (Lower Center)	
C6	Data Drive (Lower Right)	
H3	Speaker terminal	
S1	Power switch	
SS2	Sustain connection (Upper)	
SS3	Sustain connection (Lower)	
V1	Front SW. & Remote receiver	
PF	Line filter	
P	Power supply	1
HX	PC_type_Input terminal	
HY	BNC Composite/Component Video	2
HZ	BNC Component Video	3

Remarks

1. Recommend PCB´s for initial service for GPH6D2 chassis.
2. For System model except BX, EX version
3. For Consumer model except BX, EX version

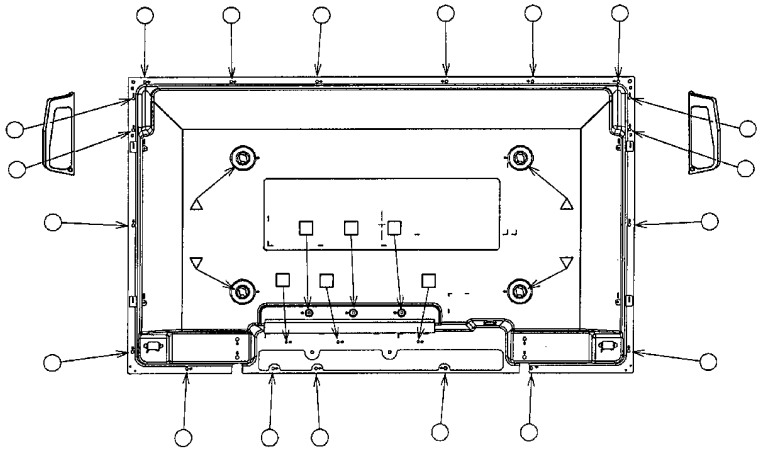
6 Service Hint

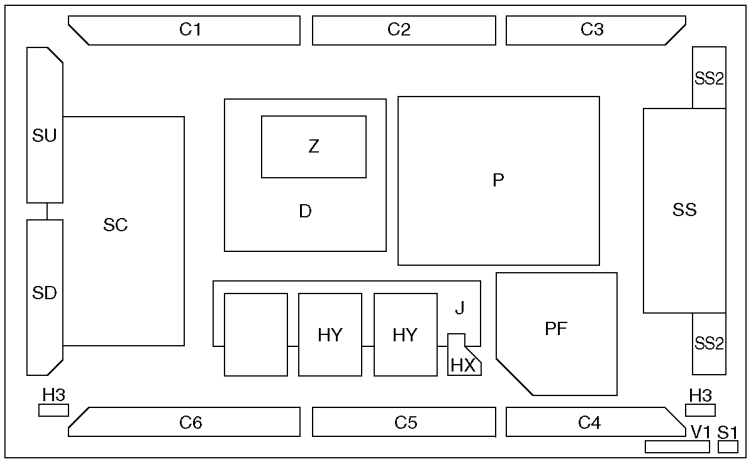
Stand the Unit used for Optional Accessory



Optional Accessory
(Pedestal)

Remove the Back Cover

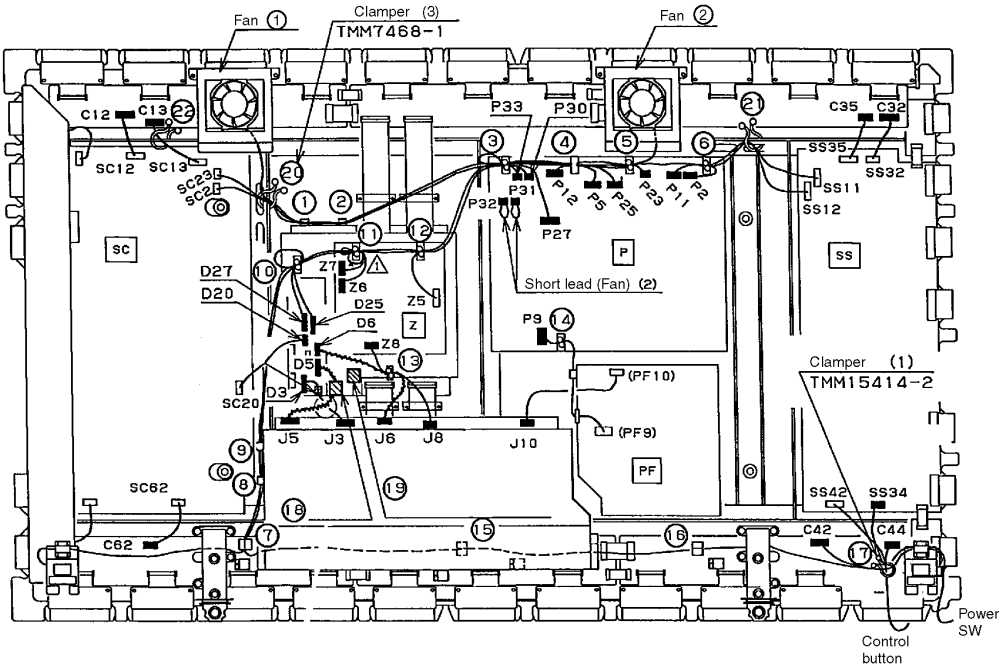




Remove: 4 screws (△) XYN8+F20FZ
6 screws (□) THEL023Z
19 screws (○) XYC4+FJ35FZ

Service Position

7 Location of Lead Wiring



CON:NO. —— CON:NO.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒
SC2 —— P2	○	○	○	○	○	○														○		
SC23 —— P23	○	○	○	○	○															○		
SC20 —— D20																						
D27 —— P27			○							◎	○	○										
D25 —— P25			○	○						◎	○	○										
D3 —— J3																						
D6 —— J6													○									
Z8 —— J8													○									
D5 —— J5																		○				
Z5 —— P5			○	○								○										
SP (SC SIDE) —— Z7							○	○	○	○	◎											
SP (SS SIDE) —— Z6							○	○	○	○	○				○	○	○					
SS12 —— P12				○	○	○															○	
SS11 —— P11						○															○	
SS42 —— C42																	○					
SS32 —— C32																						
POWER SW —— SS34																	○					
CONTROL BUTTON —— C44																	○					
PF9 —— P9														○								
PF10 —— J10																						
FAN ① —— P30	○	○	○																	○		
FAN ② —— P33			◎	○	○																	
SS35 —— C35																						
SC12 —— C12																						
SC13 —— C13																						○
SC62 —— C62																						

◎ Wind up second times.

Connector Connection: P2, P5, P9, P11, P12, P23, P25, P27, P30, P31, P32, P33
Z6, Z7, Z8,
D3, D5, D6, D20, D25, D27
J3, J5, J6, J8, J10,
SS34,
C12, C13, C32, C35, C42, C44, C62

8 Adjustment Procedure

8.1. Driver Set-up

8.1.1. Item / Preparation

1. Input an APL 100 % white signal.
2. Set the picture controls: -

   Picture mode: Normal

   White balance: Cool

   Aspect: 16:9

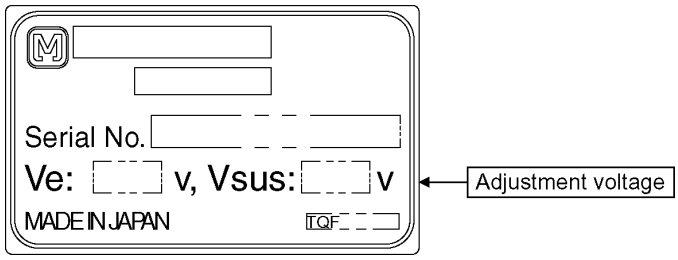
8.1.2. Adjustments

Adjust driver section voltages referring the panel data on the panel data label.

Name	Test Point	Voltage	Volume	Remarks
Vsus	TPVSUS (SS)	173V ± 2V	VR641 (P)	
Vset	TPVSET (SC)	220V ± 5V	---	
Vbk	TPVBK (SC)	140V ± 1V	R6670 (SC)	
Vad	TPVAD (SC)	-85V ± 1V	R6477 (SC)	
Vscn	TPVSCN (SC)	Vad*+118V ± 2V	---	
Ve	TPVE (SS)	150V ± 1V	R6770 (SS)	
Vda	TPVDA (SS)	75V ± 1V	VR665 (P)	

*See the Panel label.

Panel Label information



8.2. Initialization Pulse Adjust

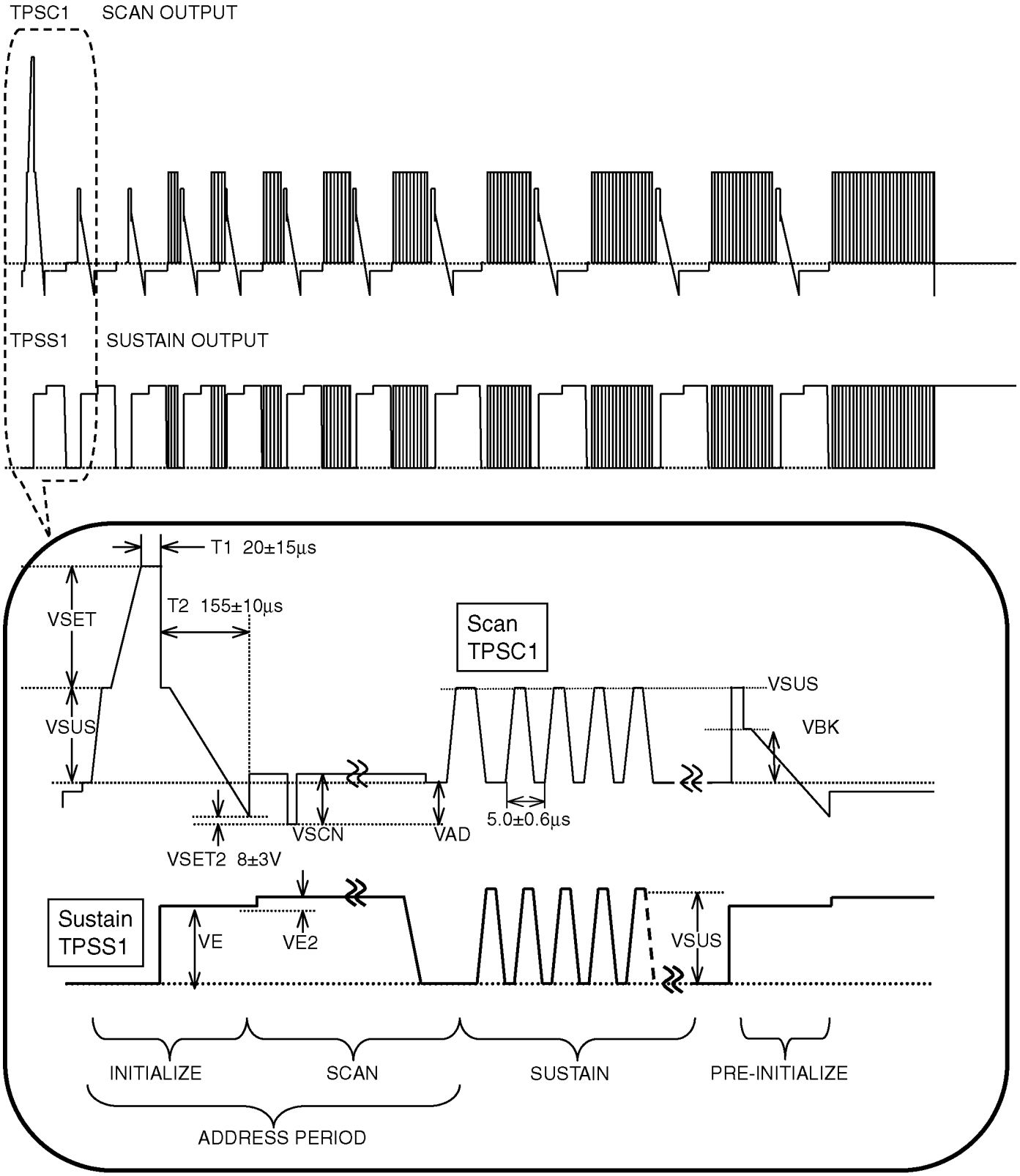
1. Input a Cross hatch signal.
2. Set the picture controls: -

   Picture mode: Normal

   White balance: Cool

Adjust the indicated test point for the specified wave form.

	Test point	Volume	Level
T1	TPSC1 (SC)	---	20 ± 15µ Sec
T2	TPSS1 (SS)	R6557 (SC)	155 ± 10µ Sec



8.3. P.C.B. (Printed Circuit Board) exchange

8.3.1. Caution

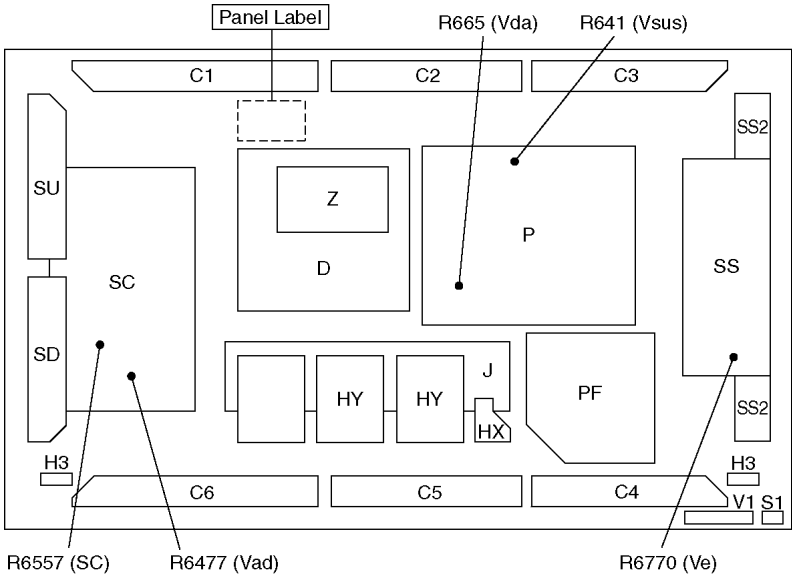
1. To remove P.C.B. , wait 1 minute after power was off for discharge from electrolysis capacitors.

8.3.2. Quick adjustment after P.C.B. exchange

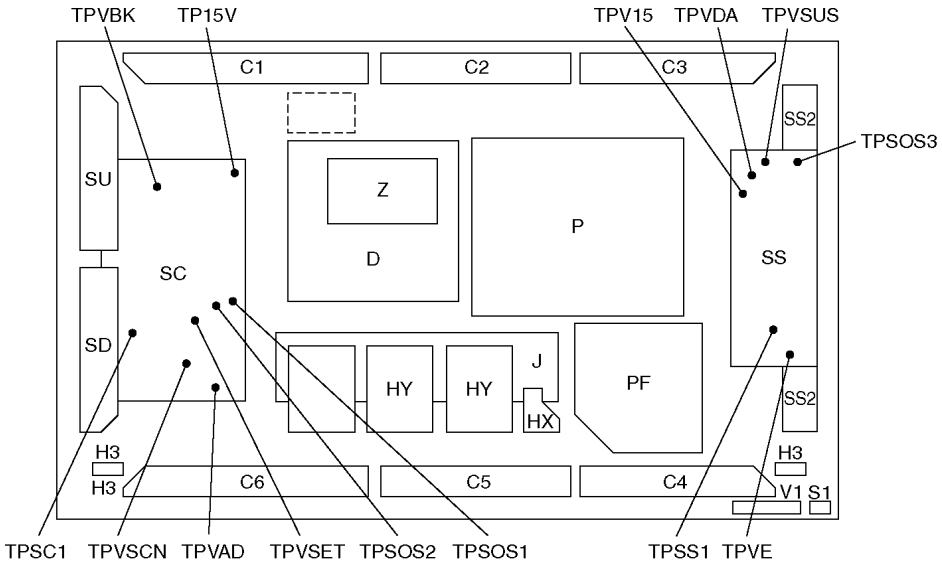
P.C.B.	Name	Test Point	Voltage	Volume	Remarks
P Board	Vsus	TPVSUS (SS)	173V ± 2V	R641 (P)	
	Vda	TPVDA (SS)	75V ± 1V	R665 (P)	
SC Board	Vad	TPVAD (SC)	85V ± 1V	R6477 (SC)	
	Vset	TPVSET (SC)	220V ± 5V	---	
	Vscn	TPVSCN (SC)	Vad + 118 ± 2V	---	
	Vbk	TPVBK (SC)	140 ± 1V	R6670 (SC)	
SS Board	Ve	TPVE (SS)	150V ± 1V	R6770 (SS)	
D, J Board	White blance, Pedestal and Sub brightness for NTSC, PAL, HD, PC and 625i signals				

*See the Panel label.

8.4. Adjustment Volume Location



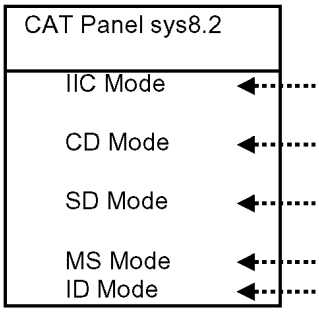
8.5. Test Point Location



9 Service mode

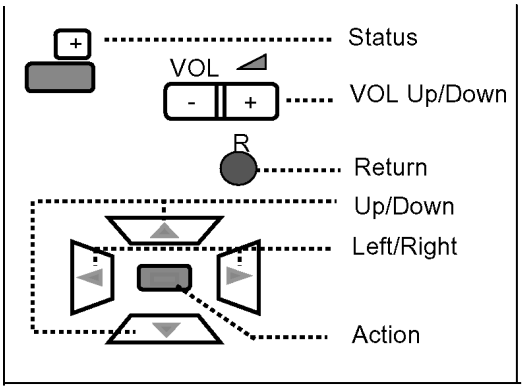
9.1. CAT (computer Aided Test) mode

CAT mode menu



Mode	Function	Access button
IIC	Service Alignment	Action
CD(Complete Diagnostics)	Software version information EEPROM edit	Mute more than 5 seconds
SD(Status Display)	MTBF parameter	Action
MS Mode	Not use	-----
ID	Not use	-----

Remote control



How to access the CAT mode.

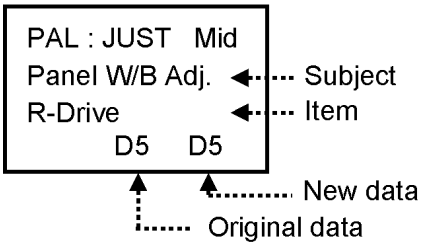
Press and the hold the Volume down / - buton on the front panel of the unit and press the status button on the remote control 3 times quickly within 1 second, this will place the unit into the CAT mode.

To exit the **CAT mode**, access the **ID mode** and switch off the main power.

9.1.1. IIC mode

Select the IIC mode by **Up/Down button** on the remote control at the front page of CAT mode then press the **Action button** on the remote control.

OSD



How to use the IIC mode.

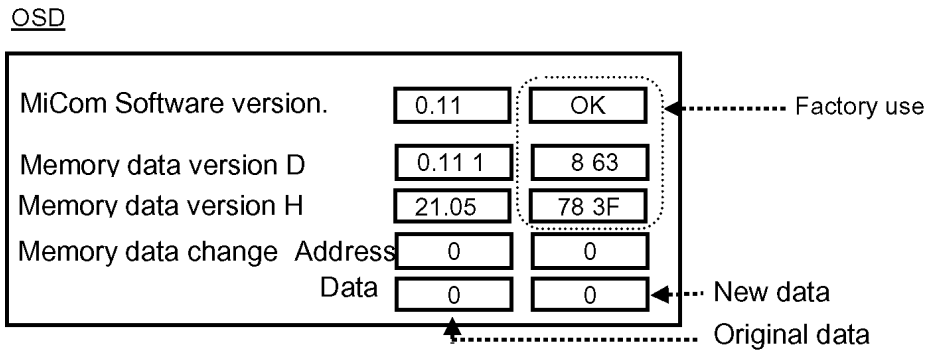
1. Select the alignment **Subject** by **Up/Down buttons** on the remote control.
2 .Select the alignment **Item** by **Left/Right buttons** on the remote control.
3. Adjust **optimum setting** by **Volume Up/Down buttons** on the remote control.
4. The **data is memorized** when press the **R button** on the remote control or change the alignment Subject (or Items).

Subject and item are mentioned on page 14.

To exit the IIC mode, press the **R button** on the remote control.

9.1.2. CD mode

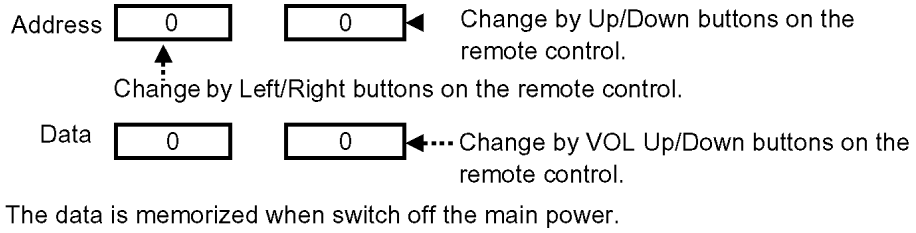
Select the CD mode by **Up/Down button** on the remote control at the front page of CAT mode then press the **Mute button** on the remote control more than 5 sec.



Micom software version (IC9705), this version can be upgrade by

1. replace of new version IC
2. Loading the new version software from loader tool, TZSC07036.

Memory data change

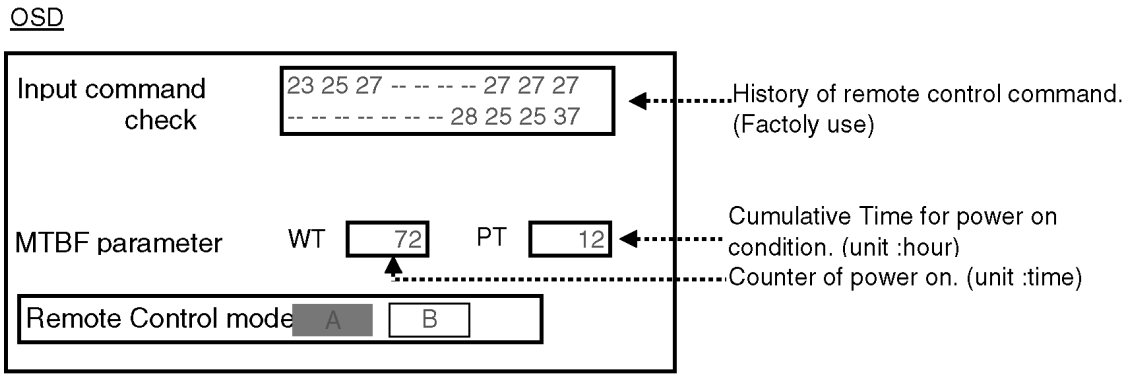


The data is memorized when switch off the main power.

To exit the CD mode, press the **R button** on the remote control.

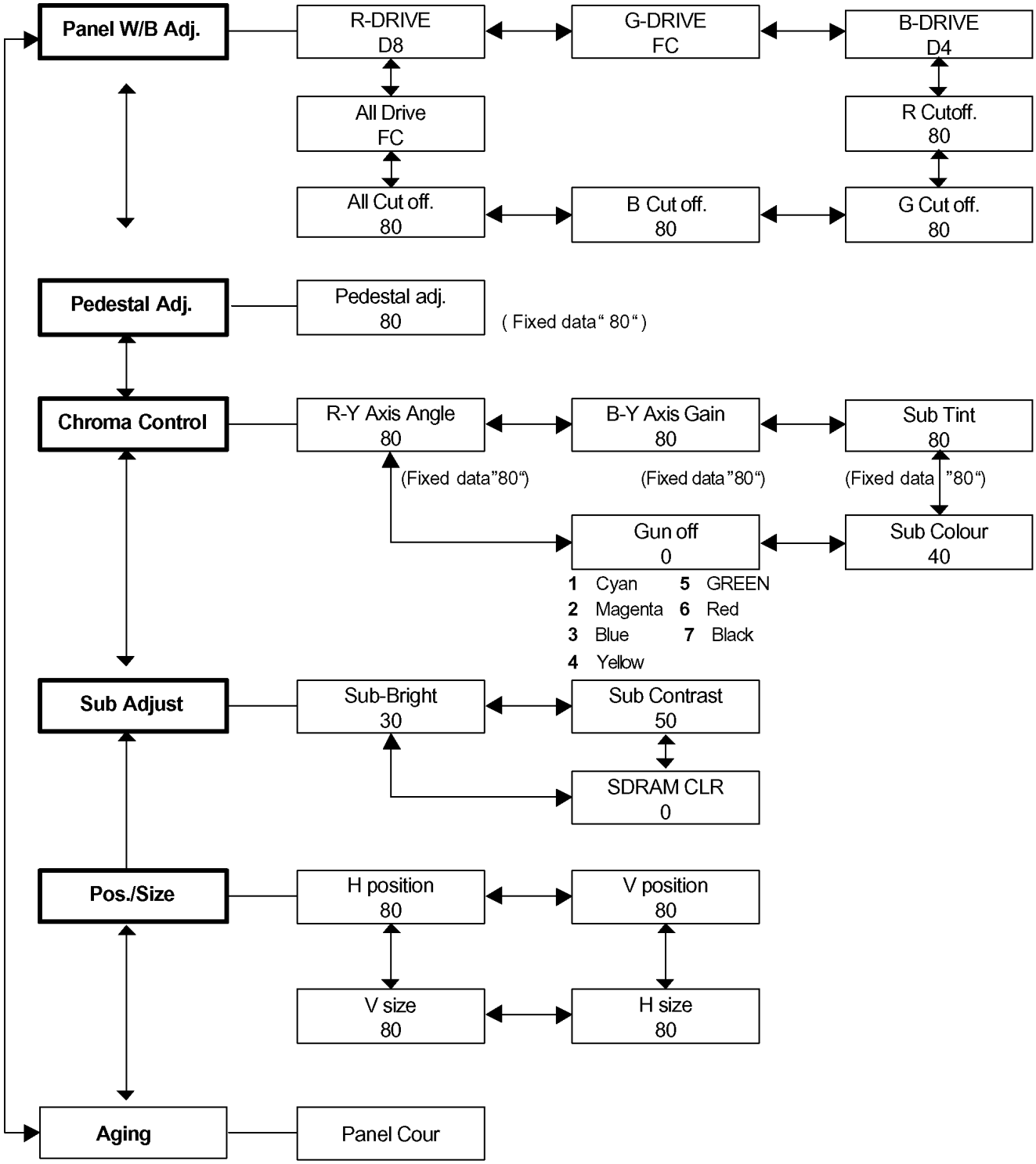
9.1.3. SD mode

Select the SD mode by Up/Down button on the remote control at the front page of CAT mode then press the Action button on the remote control.



To exit the SD mode, press the **R button** on the remote control.

9.2. IIC mode structure (following items value is sample data.)

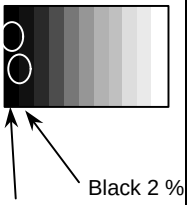
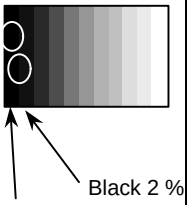


0 WHITE **3** BLUE **6** RAMP_W **9** RAMP_B
1 RED **4** SCROLL BAR **7** RAMP_R
2 GREEN **5** WHITE* **8** RAMP_G

These are selected by Action button of Remote.
*Automatically power off/on after few minutes later.

10 Alignment

10.1. Pedestal setting (C)

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	RGB(PC) Gray Scale Pattern  		Picture: Normal White balance: **Cool** Aspect: 16:9 COMPONENT /RGB-IN: RGB	PANEL W/B R cut off G cut off B cut off Chroma Control: Gun off RGB Sub Adjust: G Sub Bright 1 Chroma Control: Gun off RGB Sub Adjust: B Sub Bright 1 Chroma Control: Gun off RGB Sub Adjust: R Sub Bright 1	** Adjust at the dark room. 1) Set R,G and B cut off to " **80** ". 2) Set Gun off to "**5**". (Only green pixels can emit.) 3) Adjust G Sub bright to start some of green pixels emission at black 2% area and no emission at black 0% area. 4) Set Gun off to "**3**". (Only blue pixels can emit.) 5) Adjust B Sub bright to start some of blue pixels emission at black 2% area and no emission at black 0% area. 6) Set Gun off to "**6**". (Only red pixels can emit.) 7) Adjust R Sub bright to start some of red pixels emission at black 2% area and no emission at black 0% area.
2	Component (525i, 525p, 625i, 720i or 1080i) Gray Scale Pattern  		Picture: Normal White balance: **Cool** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change input to Component signal. 2) Repeat procedure 1) to 7) of RGB input signal.

Note:

OSD is the difference between UY model and Except UY model.
Picture: Normal (Except UY)/Standard (UY model)
White balance (Except UY)/Color Temp (UY model)

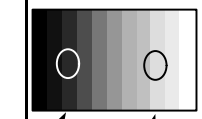
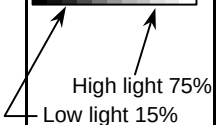
10.2. Pedestal setting (B)

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	RGB(PC) Gray Scale Pattern  		Picture: Normal White balance: **Cool** Aspect: 16:9 COMPONENT /RGB-IN: RGB	PANEL W/B R cut off G cut off B cut off Chroma Control: Gun off RGB Sub Adjust: G Sub Bright 2 Chroma Control: Gun off RGB Sub Adjust: B Sub Bright 2 Chroma Control: Gun off RGB Sub Adjust: R Sub Bright 2	** Adjust at the dark room. 1) Press the SWAP button, change input to signal path. 2) Set R,G and B cut off to " 3) Set Gun off to "**5**". (Only green pixels can emit.) 4) Adjust G Sub bright to start some of green pixels emission at black 2% area and no emission at black 0% area. 5) Set Gun off to "**3**". (Only blue pixels can emit.) 6) Adjust B Sub bright to start some of blue pixels emission at black 2% area and no emission at black 0% area. 7) Set Gun off to "**6**". (Only red pixels can emit.) 8) Adjust R Sub bright to start some of red pixels emission at black 2% area and no emission at black 0% area.
2	Component (525i, 525p, 625i, 720i or 1080i) Gray Scale Pattern  		Picture: Normal White balance: **Cool** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change input to Component signal. 2) Repeat procedure 1) to 7) of RGB input signal.

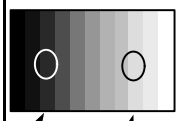
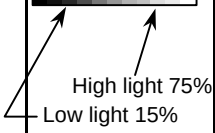
Note:

OSD is the difference between UY model and Except UY model.
Picture: Normal (Except UY)/Standard (UY model)
White balance (Except UY)/Color Temp (UY model)

10.3. NTSC panel white balance

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	NTSC Gray Scale Pattern   High light 75% Low light 15%	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	 Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-01. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-01. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. Color Temp. / x / y Cool(Hi) 0.276 0.276 Normal(Mid) 0.288 0.296 Warm(Low) 0.313 0.329 Fig. -01
2			Picture: Normal White balance: **Normal** Aspect: 16:9	 PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	 PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

10.4. PAL/SECAM panel white balance

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	PAL Gray Scale Pattern   	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	 Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-02. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-02. 9) Repeat procedure 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. Color Temp. / x / y Cool(Hi) 0.276 0.276 Normal(Mid) 0.288 0.296 Warm(Low) 0.313 0.329 Fig. -02
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

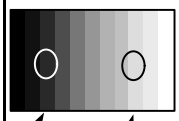
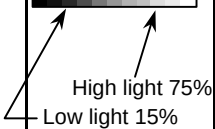
<table>
<tr><th></th><th></th><th>Equipment</th><th>Setting</th><th>Alignment menu</th><th>Procedure</th></tr>
<tr><td>5</td><td>SECAM signal</td><td></td><td>Picture:
Normal
Aspect:
16:9

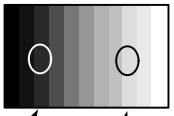
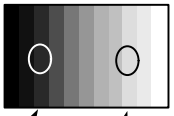
White balance:
Cool
Normal
Warm</td><td></td><td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.

<table><tr><td>White Balance</td><td>Cool</td><td>Normal</td><td>Warm</td></tr><tr><td>R Drive</td><td></td><td></td><td></td></tr><tr><td>G Drive</td><td></td><td></td><td></td></tr><tr><td>B Drive</td><td></td><td></td><td></td></tr><tr><td>R Cut off</td><td></td><td></td><td></td></tr><tr><td>G Cut off</td><td></td><td></td><td></td></tr><tr><td>B Cut off</td><td></td><td></td><td></td></tr></table>
2) Input SECAM signal.

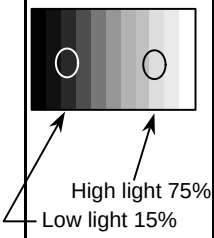
3) Copy PAL R,G,B drive and cut off data of each white balance mode to SECAM position.</td></tr>
</table>

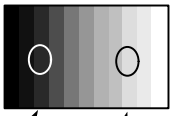
10.5. PC/RGB panel white balance

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	PC Gray Scale Pattern   	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-03. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-03. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. Color Temp. / x / y Cool(Hi) 0.276 0.276 Normal(Mid) 0.288 0.296 Warm(Low) 0.313 0.329 Fig. -03
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

<table>
<tr><th></th><th>INPUT</th><th>Equipment</th><th>Setting</th><th>Alignment menu</th><th>Procedure</th></tr>
<tr><td>5</td><td>RGB
Gray Scale
Pattern
 
High light 75%
Low light 15%</td><td></td><td>Picture:
Normal
Aspect:
16:9
White balance:
Cool
Normal
Warm</td><td></td><td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.
<table><tr><th>White Balance</th><th>Cool</th><th>Normal</th><th>Warm</th></tr><tr><td>R Drive</td><td></td><td></td><td></td></tr><tr><td>G Drive</td><td></td><td></td><td></td></tr><tr><td>B Drive</td><td></td><td></td><td></td></tr><tr><td>R Cut off</td><td></td><td></td><td></td></tr><tr><td>G Cut off</td><td></td><td></td><td></td></tr><tr><td>B Cut off</td><td></td><td></td><td></td></tr></table>2) Input RGB signal.
3) Copy PC R,G,B drive and cut off data of each white balance mode to RGB position.</td></tr>
<tr><td>6</td><td>DVI
Gray Scale
Pattern
 
High light 75%
Low light 15%</td><td></td><td>Picture:
Normal
Aspect:
16:9
White balance:
Cool
Normal
Warm</td><td></td><td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.
<table><tr><th>White Balance</th><th>Cool</th><th>Normal</th><th>Warm</th></tr><tr><td>R Drive</td><td></td><td></td><td></td></tr><tr><td>G Drive</td><td></td><td></td><td></td></tr><tr><td>B Drive</td><td></td><td></td><td></td></tr><tr><td>R Cut off</td><td></td><td></td><td></td></tr><tr><td>G Cut off</td><td></td><td></td><td></td></tr><tr><td>B Cut off</td><td></td><td></td><td></td></tr></table>2) Input DVI signal.
3) Copy PC R,G,B drive and cut off data of each white balance mode to DVI position.</td></tr>
</table>

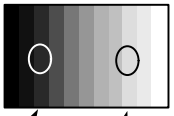
10.6. HD/ 525i /525p /625I /625P panel white balance

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	HD (720i or 1080i) Gray Scale Pattern  	Color Analyzer	Picture: Normal White balance: **Cool** Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m2 as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m2 exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-04. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m2. 6)Find 75% of white area by color sensor. 7) Set G Drive to " D8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-04. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. Color Temp. / x / y Cool(Hi) / 0.276 / 0.276 Normal(Mid) / 0.288 / 0.296 Warm(Low) / 0.313 / 0.329 Fig. -04
2			Picture: Normal White balance: **Normal** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.
3			Picture: Normal White balance: **Warm** Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.
4			Picture: Normal White balance: **Cool** Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2)Re-set Sub bright to "30"

<table>
<tr><th></th><th>INPUT</th><th>Equipment</th><th>Setting</th><th>Alignment menu</th><th>Procedure</th></tr>
<tr><td>5</td><td>RGB
Gray Scale
Pattern
 
High light 75%
Low light 15%</td><td></td><td>Picture:
Normal
Aspect:
16:9

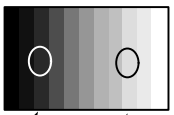
White balance:
Cool
Normal
Warm</td><td></td><td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.

<table><tr><th>White Balance</th><th>Cool</th><th>Normal</th><th>Warm</th></tr><tr><td>R Drive</td><td></td><td></td><td></td></tr><tr><td>G Drive</td><td></td><td></td><td></td></tr><tr><td>B Drive</td><td></td><td></td><td></td></tr><tr><td>R Cut off</td><td></td><td></td><td></td></tr><tr><td>G Cut off</td><td></td><td></td><td></td></tr><tr><td>B Cut off</td><td></td><td></td><td></td></tr></table>
2)Change input signal to 525i and 525p.

3) Copy HD drive and cut off data of each white balance mode to each signals position.</td></tr>
<tr><td>6</td><td>RGB
Gray Scale
Pattern
 
High light 75%
Low light 15%</td><td></td><td>Picture:
Normal
Aspect:
16:9

White balance:
Cool
Normal
Warm</td><td></td><td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.

<table><tr><th>White Balance</th><th>Cool</th><th>Normal</th><th>Warm</th></tr><tr><td>R Drive</td><td></td><td></td><td></td></tr><tr><td>G Drive</td><td></td><td></td><td></td></tr><tr><td>B Drive</td><td></td><td></td><td></td></tr><tr><td>R Cut off</td><td></td><td></td><td></td></tr><tr><td>G Cut off</td><td></td><td></td><td></td></tr><tr><td>B Cut off</td><td></td><td></td><td></td></tr></table>
2)Change input signal to 525p and 625i.

3) Copy HD drive and cut off data of each white balance mode to each signals position.</td></tr>
<tr><td>7</td><td>RGB
Gray Scale
Pattern
 
High light 75%
Low light 15%</td><td></td><td>Picture:
Normal
Aspect:
16:9

White balance:
Cool
Normal
Warm</td><td></td><td>1) Write down each color temaparature of R,G,B drive and Cut off data as follows.

<table><tr><th>White Balance</th><th>Cool</th><th>Normal</th><th>Warm</th></tr><tr><td>R Drive</td><td></td><td></td><td></td></tr><tr><td>G Drive</td><td></td><td></td><td></td></tr><tr><td>B Drive</td><td></td><td></td><td></td></tr><tr><td>R Cut off</td><td></td><td></td><td></td></tr><tr><td>G Cut off</td><td></td><td></td><td></td></tr><tr><td>B Cut off</td><td></td><td></td><td></td></tr></table>
2)Change input signal to 625i and 625p.

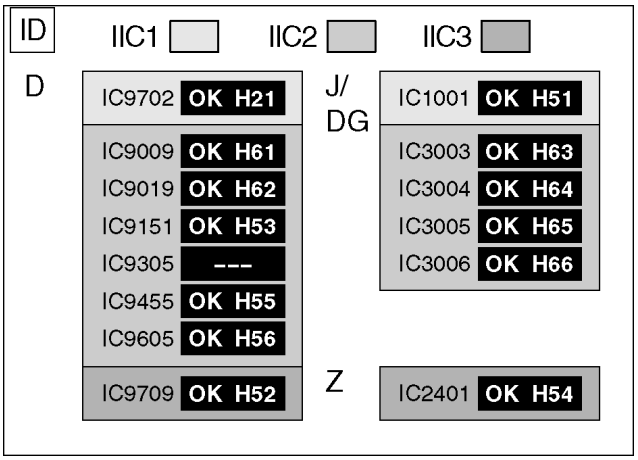
3) Copy HD drive and cut off data of each white balance mode to each signals position.</td></tr>
</table>

11 Trouble shooting guide

11.1. Self Check

1. Self-check is used to automatically check the bus line controlled circuit of the Plasma display.
2. To get into the Self-check mode, press the **volume down** button on the customer controls at the front of the set, at the same time pressing the **OFF-TIMER** button on the remote control, and the screen will show :-

If the CCU ports have been checked and found to be incorrect Or not located then " - - " will appear in place of " OK "



11.2. No Power

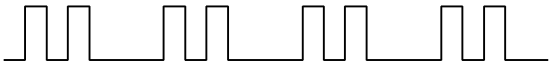
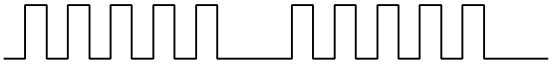
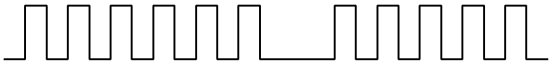
11.2.1. Power LED Blinking timing chart

1. Subject

   Information of LED Flashing timing chart.

2. Contents

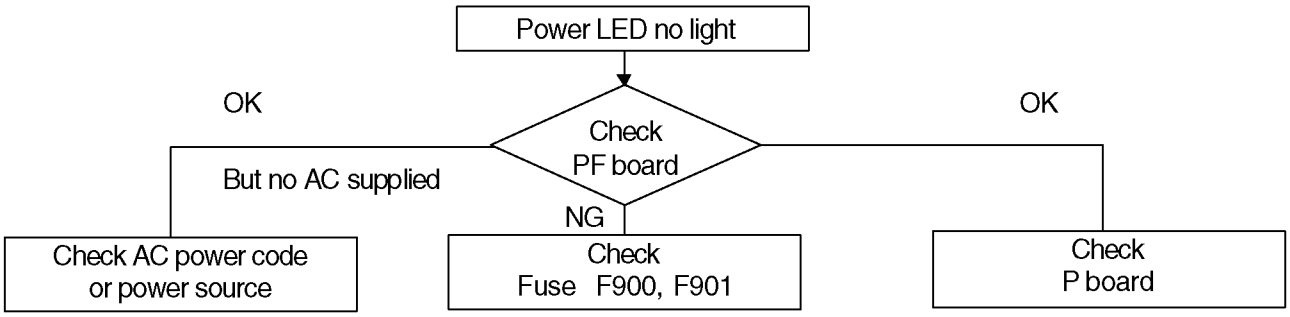
   When an abnormality has occurred the unit, the protection circuit operates and reset to the stand by mode. At this time, the defective block can be identified by the number of blinkes of the Power LED on the front panel of the unit.

Blinking times	Blinking timing	Contents & Check point
2		Data Driver
3		3.3V SOS
4		5V SOS
5		Power SOS
6		FAN
7		SCAN Driver
9		SUS Driver

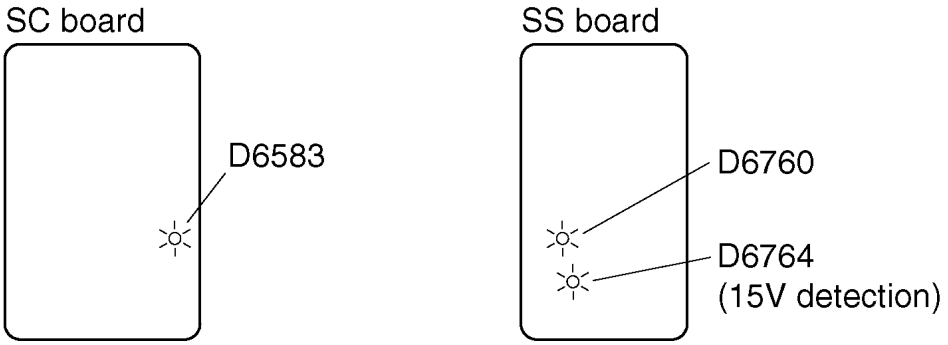
3. Remarks

   Above Fan function is operated during the fans are installed.

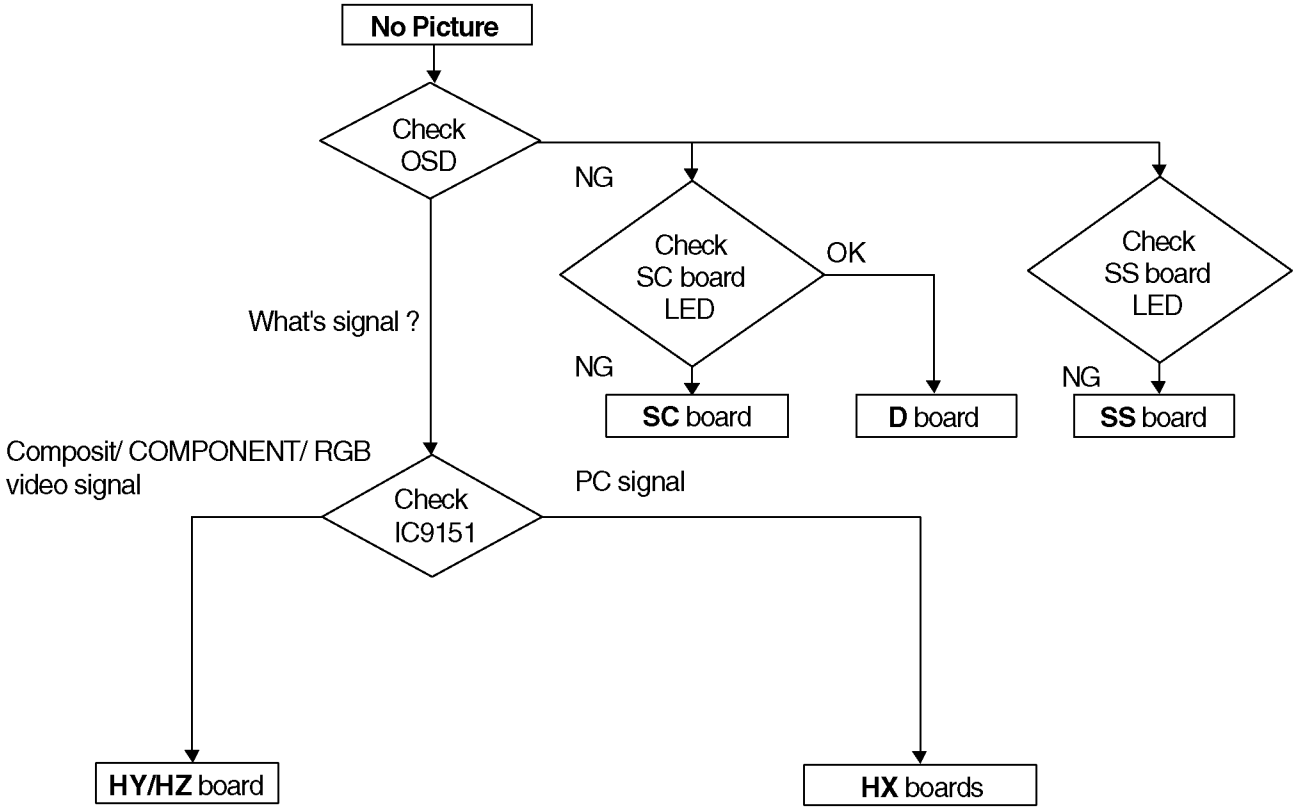
11.2.2. Power LED no light



Drive circuits LED indicator

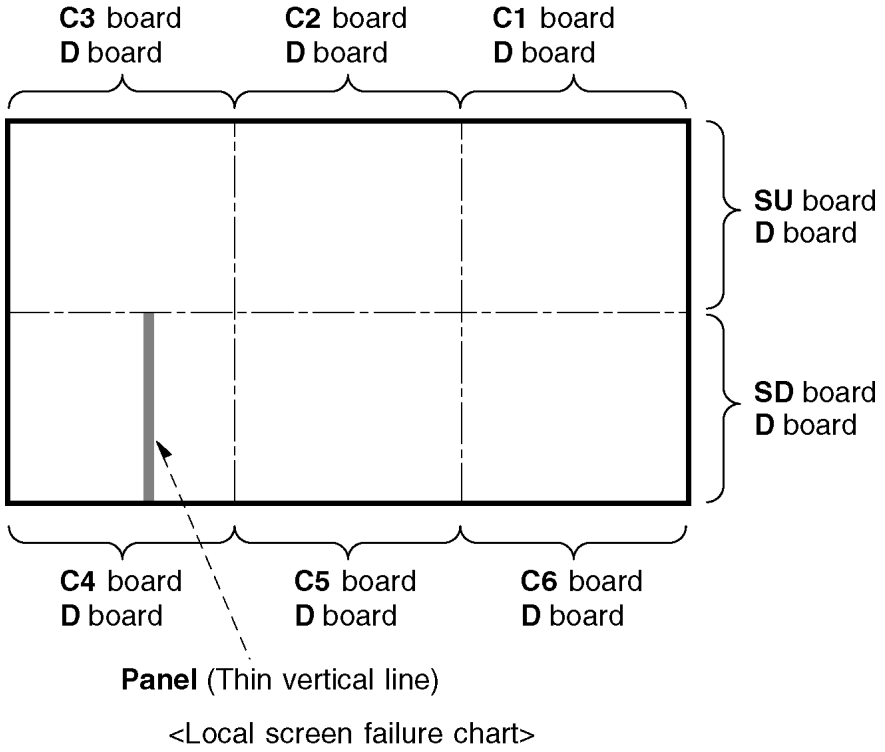


11.3. No Picture



11.4. Local screen failure

Plasma display may have local area failure on the screen. Fig - 1 is the possible defect P.C.B. for each local area.



<Local screen failure chart>

Fig - 1

12 Option Setting

12.1. How to access and setting

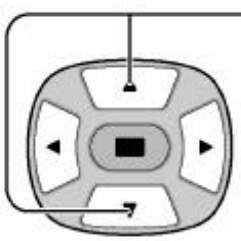
How to access the Option menu

1

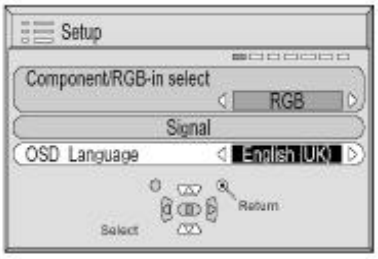


Press to display the Setup menu.

2



Press to select OSD Language.



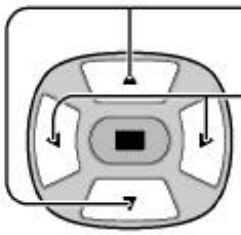
3



Press down for more than 3 seconds to display the Option menu.

Setting the Option menus

1



Press to select the desired item.

Press to select the desired function.

The option menu will disappear 60 seconds after operation.

2



Press to exit Option menu.

12.2. Contents of Option Menu

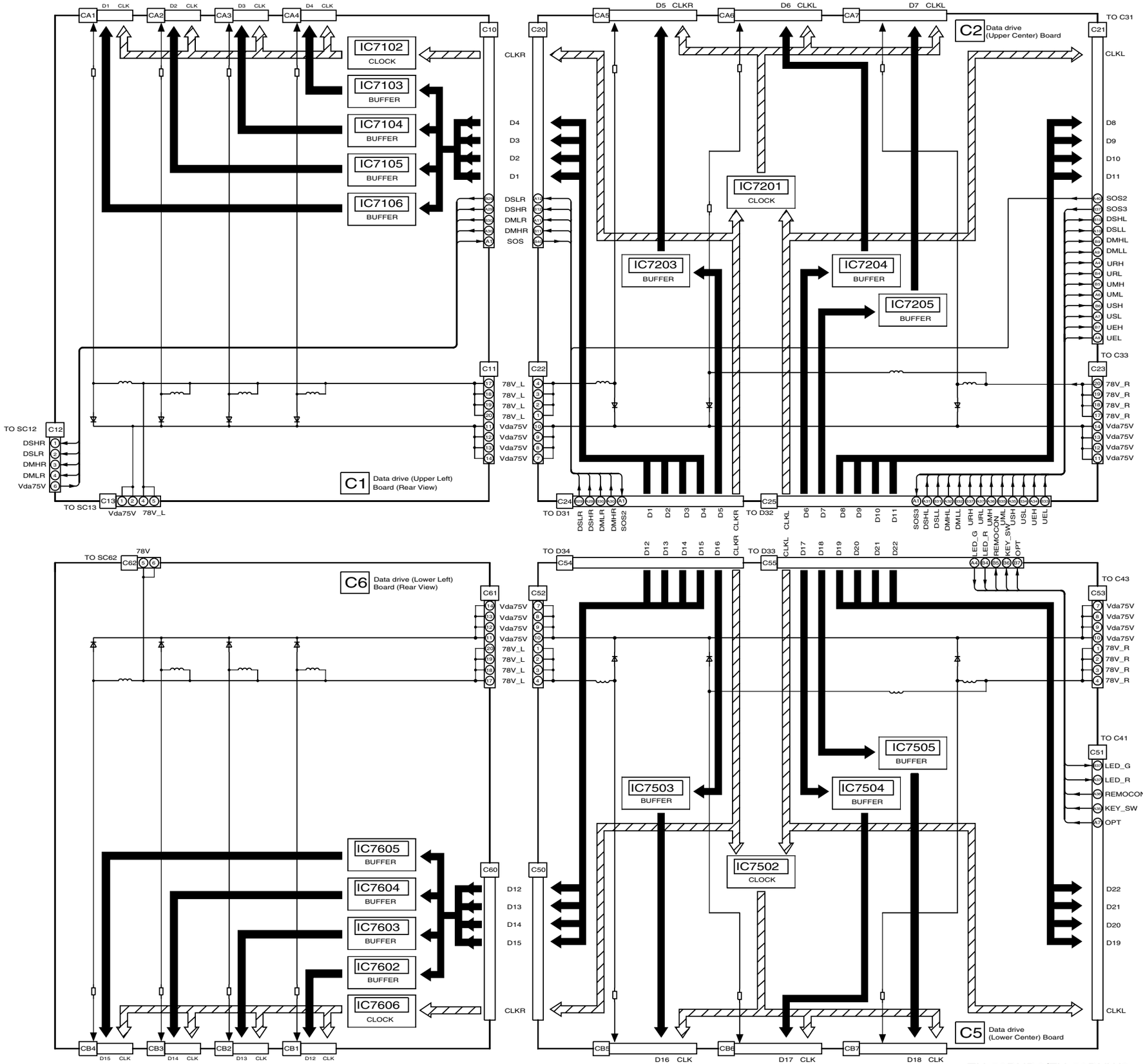
This chassis series have special function and operation setting facility called Option Menu. This Option Menu is useful for special function required customers. This should be set at the installation stage. The end user could not set or change these because of hidden On screen menu.

Option menus	default setting	Contents
Off-timer function	Enable	Off-timer operation Enable/Disable.
On Screen display	On	Enable/Disable to display input mode indication after power on and no signal indication.
Initial Input	Off	Sets the initial input mode when the power is turned on . Allow input mode selection while power is on.
Initial VOL. level	Off	Sets the initial volume level when the power is turned on. Allow Volume control while power is on.
Maximum VOL. Level	Off	Sets the maximum volume to desired level. Volume cannot exceed this level.
INPUT lock	Off	Fixes the input mode to AV, Component/RGB or PC. Can not change input mode by input selection key.
Button lock	Off	Enable/Disable front operation buttons (Input and/or volume up/down)
Studio W/B	Off	Set warm mode color temperature to 3,200 Kelvin.
Remocon User Level	Off	Remote key invalidation. Off : Valid key is all key of remote. User1 : Valid key are only Stand-by (ON/OFF), Input, Status, Surround, Sound mute On/Off, and volume adjustment. User2 : Valid key is only Stand-by (ON/OFF). User3 : All keys are null and void
ID Select	0 to 100	Set ID number from 001 to 100.
Remote ID	Off	Remote ID function On/Off. (While the Remote ID on, standard remote function can not control the unit.)
Serial	Off	Serial ID function On/Off
Slot power	Off	Sets the slot power mode the power is turned on. Allow Optional Terminal Board insert Slots while power is on.

Note :

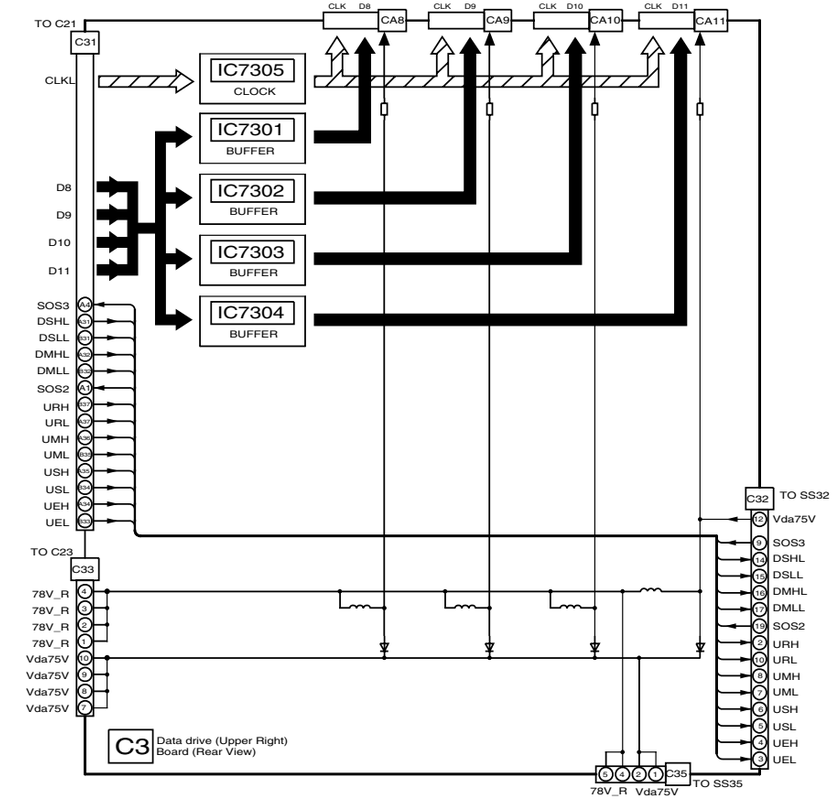
How to set Remocon User Level and Remote ID off

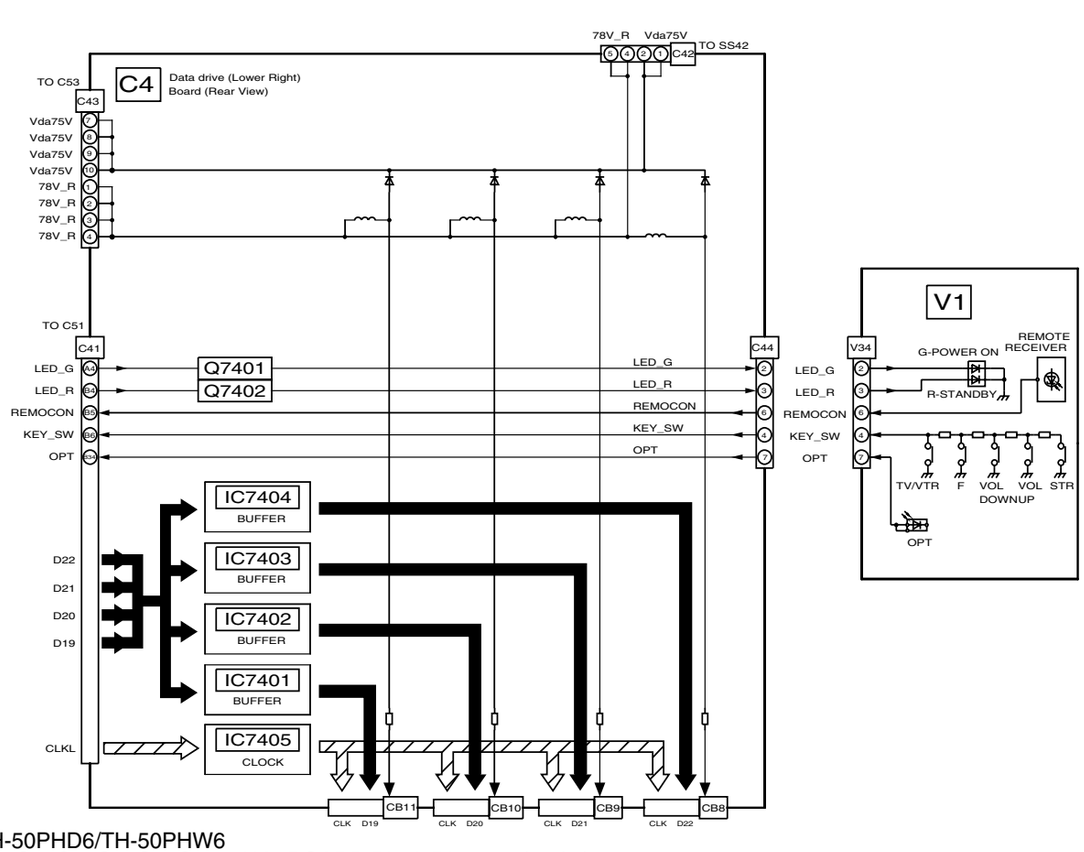
1. Access service mode (CAT-mode) and press SET UP key on remote.
2. Accsess option menu.
3. Change Remocon User Level and/ or Remote ID set to Off.



TH-50PHD6/TH-50PHW6
C1, C2, C3, C4, C5, C6 and V1-BOARD Block Diagram (1 of 2)

TH-50PHD6/TH-50PHW6
C1, C2, C3, C4, C5, C6 and V1-BOARD Block Diagram (1 of 2)





TH-50PHD6/TH-50PHW6
C1, C2, C3, C4, C5, C6 and V1-BOARD Block Diagram (2 of 2)

TH-50PHD6/TH-50PHW6
C1, C2, C3, C4, C5, C6 and V1-BOARD Block Diagram (2 of 2)

D D-Board(1of2)Block Diagram

LVDS:Low Voltage Differential Signaling

TO J-BOARD J6 (D6)

TX0- TX0+ TX1- TX1+ TX2- TX2+ TX3- TX3+ TXC- TXC+

IC9002 LVDS/TTL(PARALLEL) — TTL PARALLEL TO LVDS

CLK OUT, HS OUT, VS OUT

R/G/B

IC9005 BUS SWITCH (OE)

Q9001 SW

IC9003 INVERTER

IC9004 SWITCHING — CLKC

TO J-BOARD J3 (D3)

Y S, PB S, PR S

IC9009 A/D CONVERTER(SUB)

PLL, 110M 8BIT ADC, CLP

B Pb/B IN, G Y/G IN, R Pr/R IN

B(8Bit), G(8Bit), R(8Bit)

SDA2, SCL2, SYNC/SEPA, CLAMP, HSYNC, VSYNC

VS OUT, HS OUT, VD, HD

IC9008 BUS SWITCH (OE)

IC9023 5V->3.3V

HD, VD, NCLP

IC9711 SWITCHING

SCL1, SDA1, SCL2, SDA2, SCL3, SDA3

SCL2(IIC 5V), SDA1(IIC 5V), IIC_CONT, Q9719

5V->3.3V Q9704 SCL2(3.3V)

5V->3.3V Q9703 SDA2(3.3V)

SOUND MAIN MUTE, CABLE DET, SMM

TO J-BOARD J5 (D5)

HD, VD, NCLP, Y, PB, PR

IC9019 A/D CONVERTER(MAIN)

IC9018 BUS SWITCH (OE)

IC9011 LVDS/TTL(PARALLEL) — TTL PARALLEL TO LVDS

IC9015 BUS SWITCH (OE)

Q9002 SW

IC9012 INVERTER

IC9013 SWITCHING — CLKB

D (1/2) Format Converter

IC9151 FORMAT CONVERTER(I/P)

CLKC, CLKB

8BIT ADC 110M; RGB /Y Pb Pr; FORMAT CONVERTER (I/P CONVERTER); CTI/TINT COLOR CONTRAST WB-Adj OSD St-r

F.CLP

SDRAM I/F — IC9155 64M SDRAM

DIGITAL C, DIGITAL B, OCK PLL

IC9154 3.3V->5V

IC9157 PLL M (100MHz)

OSD

B0-B7,G0-G7,R0-R7 LEFT(MASTER)RGB 8bit

B0-B7,G0-G7,R0-R7 RIGHT(SLAVE)RGB 8bit

IIC_CONT

RESET

SMM

SERIAL DATA

IC9606 RESET

DCKC, DCKB, HDS I/O, VDS I/O, HD, VD, CLP, HS C1, HS B1, VS C1, VS B1, CLP C1, CLP B1, HDM I/O, VDM I/O, HDM I/O, VDM I/O, CLPM

IC9605 (1/2) SYNC PROCESSOR OSD

SDA I/O, SCL I/O, MCVD, MCHD

IC9703 3.3V->5V

OSD — IC9602 BUFFER

SMM — SOUND MUTE

IC9701 MICRO PROCESSOR

NH IN, NV IN

A01 ~ A19, D00 ~ D15

IC9704 VRAM(1Mbit)

RAS, CAS, CE, WE, OE

IC9705 FLASH MEMORY (8M ROM)

OSC IN, OSC OUT, 24.6MHz X9701, X9703

CABLE DET — Q9707

AD1, SCL3, SDA3, SCL2, SDA2, SCL1, SDA1

IC9702 EEPROM (SDA, SCL)

IC9001 REG 3.3V (P5V → 3.3V)

IC9006 REG 3.3V

IC9007 REG 3.3V

IC9010 REG 3.3V

IC9016 REG 3.3V

IC9017 REG 3.3V

TH-50PHD6/TH-50PHW6 D-BOARD Block Diagram (1 of 2)

IC9153
REG 5V
UNREG 14V → 1 → 3 → 5V

IC9302
REG 3.3V
P5V → 5 → 4 → 3.3V

IC9152
REG 3.3V
P5V → 5 → 4 → 3.3V

IC9800
DC DC CONVERTER
(1.8V)
UNREG 14V → 1.8V

IC9952
DC DC CONVERTER
(1.8V)
UNREG 14V → 1.8V

IC9951
DC DC CONVERTER
(3.3V)
UNREG 14V → 3.3V

IC9453
DC DC CONVERTER
(3.3V->2.5V)
→ 2.5V

IC9454
64M SDRAM

Plasma AI control
IC9456
FLASH MEMORY
(32M ROM)
RESET (12)

IC9459
BUS SW
Q9400 BUS RELEASE

B0-B7,G0-G7,R0-R7
LEFT(MASTER)RGB 8bit

IC9455
NEW PLASMA AI
10bit PROCESSOR
SUB-FIELD PROCESSOR
(L Master) SLV44h
FC RAM I/F
FLASH ROM I/F
DATA DRIVER
FPGA I/F
DATA DRIVER

B0-B7,G0-G7,R0-R7
RIGHT(SLAVE)RGB 8bit

IC9304
64M SDRAM

IC9305
NEW PLASMA AI
10bit PROCESSOR
SUB-FIELD PROCESSOR
(R Slave) SLV42h
FC RAM I/F
FLASH ROM I/F
DATA DRIVER
FPGA I/F
DATA DRIVER

IIC_CONT
RESET
SMM

CEL
CER
BLKL
BLKD
HZ

TO C2-BOARD
C25
D32
Q9596 Q9597
DRVRST-5V
DATA DRIVE
L-UP
DRVRST

TO C5-BOARD
C55
D33
Q9591 Q9594
DRVRST-5V
DATA DRIVE
L-DOWN
LED G
LED R
KEY
REMOCON
DRVRST

TO C2-BOARD
C24
D31
Q9598 Q9599
DRVRST-5V
DATA DRIVE
R-UP
DRVRST

TO C5-BOARD
C54
D34
Q9592 Q9593
DRVRST-5V
DATA DRIVE
R-DOWN
DRVRST

IC9457
BUFFER
DSLL, DSHL, DMLL, DMHL,
DSLR, DSHR, DMHR

IC9601
BUFFER
UEH, USL, USH, UML, UMH, NUEL, UBK

IC9603
BUFFER
CL, CLK,SIU, SID, SCSU, CPL CPH

IC9604
BUFFER
CLE, CBK, CSL, CSH, CML, CMH, PCU
PCD,PCU

TO SC-BOARD
SC20
D20
SCAN
OUT
SOS1
SOS2

IC9605 (2/2)
DISCHARGE
CONTROL
SDA2
SCL2
DRVRST

TO J-BOARD
J3
D3
REMOCON_OUT
FAN_CONT
STB_ON
POWER_STATUS
TXD_TU
RXD_TU
REAL TIME/INPUT
TXD_PC
RXD_PC
RESET

IC9703
3.3V->5V

IIC CONT
SMM
RESET
CABLE_DET
STB_ON
POW_STATUS
TXD_TU
RXD_TU
RTC_INT
TXD_PC
RXD_PC

IC9709
SUB MPU(CONVERTER)

X9702
X IN
X OUT
9,216MHz

Q9301
DRVRST
DRVRST-5V

LED G
LED R
KEY
REMOCON
SOS2
SOS1

IC9710
RESET
STB 5V

RESET
RUSH ON/OFF
TV ON/OFF
KILL SOS
FAN SOS
PS SOS
ALL OFF1

TO P-BOARD
P25
D25
15V
15V
5V
FAN CONT
FAN_CONT

IC9708
EEPROM
SDA
SCL

IC9707
OR

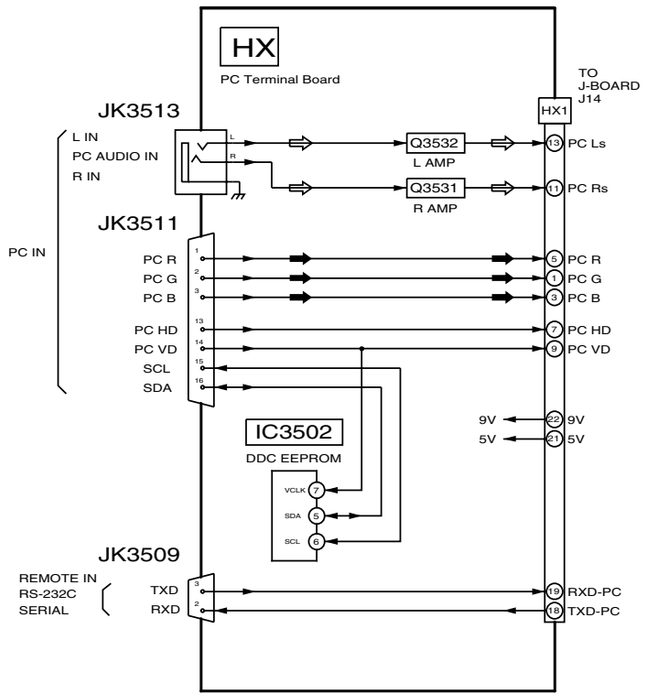
D (2/2)
Plasma AI Sub-Field Processor

REMO OUT
REMO INH
Q9708
SCL3
SDA3

TO P-BOARD
P27
D27
RUSH ON/OFF
TV ON/OFF
M POWER
STB5V
KILL SOS
FAN SOS
PS SOS
ALL OFF1

STB5V_S
STB5V_M
Q9702
Q9701

TH-50PHD6/TH-50PHW6 D-BOARD Block Diagram (2 of 2)



TH-50PHD6/TH-50PHW6
HX-BOARD Block Diagram

HY

CVBS & RGB/COMPONENT(BNC) Terminal Board

AV

JK3001 S-VIDEO IN — C IN (C), Y IN (Y)

JK3002 VIDEO IN/OUT — VIDEO IN, VIDEO OUT

IC3401 AMP & SW

L.P.F. → Q3403 BUFFER → Q3101,3102 BUFFER → IC3103 GC2M (72 C)

Q3005 BUFFER → L3006 L.P.F. → Q3007 BUFFER → Q3104 BUFFER → IC3103 (95 V/Y)

Y CLIP (104)

Q3023 BUFFER

Q3401 SW

Q3004 INV.

IC3103 GLOBAL TV SIGNAL PROCESSOR

Analog Front-End; AGC 2 x ADC

Adaptive Comb Filter; NTSC PAL

Color Decoder NTSC PAL SECAM; Saturation Tint

Mixer

2DScalar PIP Panorama Contast Brightness Peaking

Output Formatter

IC3104 RESET (4 OUT → 55)

IC3201 FOR NTSC 3D COMB FILTER

5M FIFO

MEMORY CONTROLLOR

R07 (13), R00 (8), B07 (206), B00 (199), G07 (192), G00 (183)

H Sync (183), V Sync (182), LL Clock (181)

IIC Bus; Clock Gen.; SDA (110), SCL (112)

X3101 (113, 115)

Sync + Clock Generation

IC3251 LVDS TRANSMITTER

R07 (3, 56), R00 (55, 54, 53, 51, 2, 50), B07 (24, 23, 22, 20), B00 (19, 15, 18, 16), G07 (14, 12, 11, 7, 6, 4), G00 (10, 8)

HS (27), VS (28), CLK IN (31), CLKSEL (17), /PDWN (32)

TTL PARALLEL TO LVDS; PLL

TX0+ (47), TX0- (48), TX1+ (45), TX1- (46), TX2+ (41), TX2- (42), TX3+ (37), TX3- (38)

TXC+ (39), TXC- (40)

IC3305 DAC ICC EXPANDER

/POWN (5 NFP), CLK SEL (6 Y-SEL), (4 S-SEL), S DET (12 S-DET)

IC3311 5V<=>3.3V (SCL 14, SDA 15)

IC3105 5V<=3.3V (SCL 5, SDA 2)

IC3699 EEPROM (SCL 6, SDA 5)

IC3101 REG: 2.5V (3) → (1)

IC3302 REG: 2.5V (3) → (1)

IC3303 2.5V REG: PLL 2.5V (2) → (1), (5)

IC3301 REG: 3.3V (1) → (2)

H0: SDA (7), SCL (6), SRQ (2), STB5V (1) ← STB5V

H1: TO J11; STB5V (25), SRQ (26)

3.3V (A17, A17); 5V (A18, B19); 9V (A21, B21)

TX0+ (B3), TX0- (B2), TX1+ (B4), TX1- (B5), TX2+ (B9), TX2- (B8), TX3+ (B11), TX3- (B14)

TXC+ (B12), TXC- (B11)

SCL2 (B25), SDA2 (B24), S2 DET (B36)

L (A29), R (A28), Y/G (A38)

JK3004 AUDIO IN — L IN, R IN

Q3051 L AMP; Q3052 R AMP

H2: TO J12; AUDIO L (A26), AUDIO R (A28)

JK3303 AUDIO IN — L IN, R IN

Q3503 L AMP; Q3504 R AMP

COMPONENT /RGB

JK3304 COMPONENT /RGB — Y, PB, PR, H, V

R/PR; G/Y; B/PB

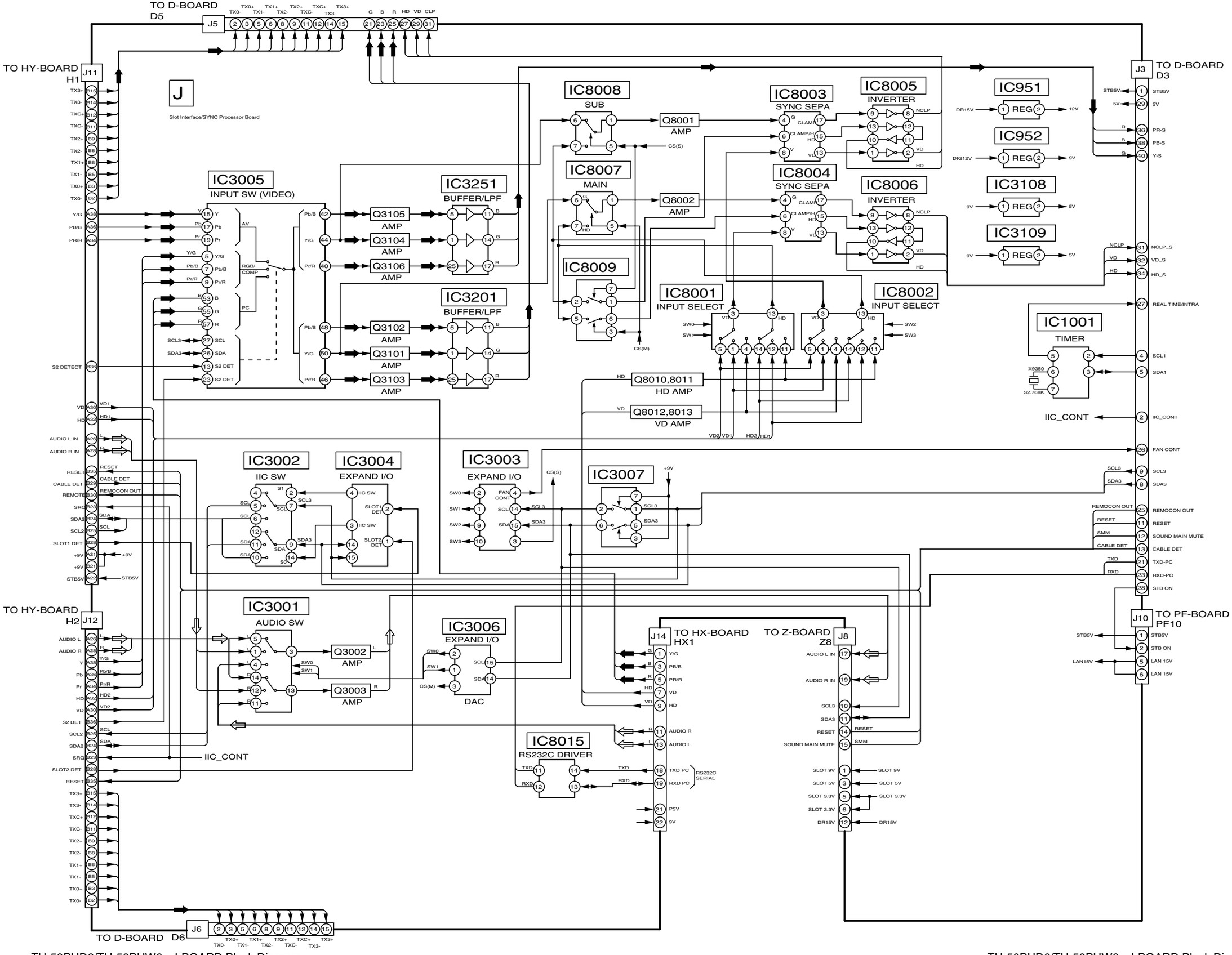
H/HV → Q3505,3506 HD AMP

V → Q3501,3502 VD AMP

Y (A38), PB (A36), PR (A34), HD (A32), VD (A30)

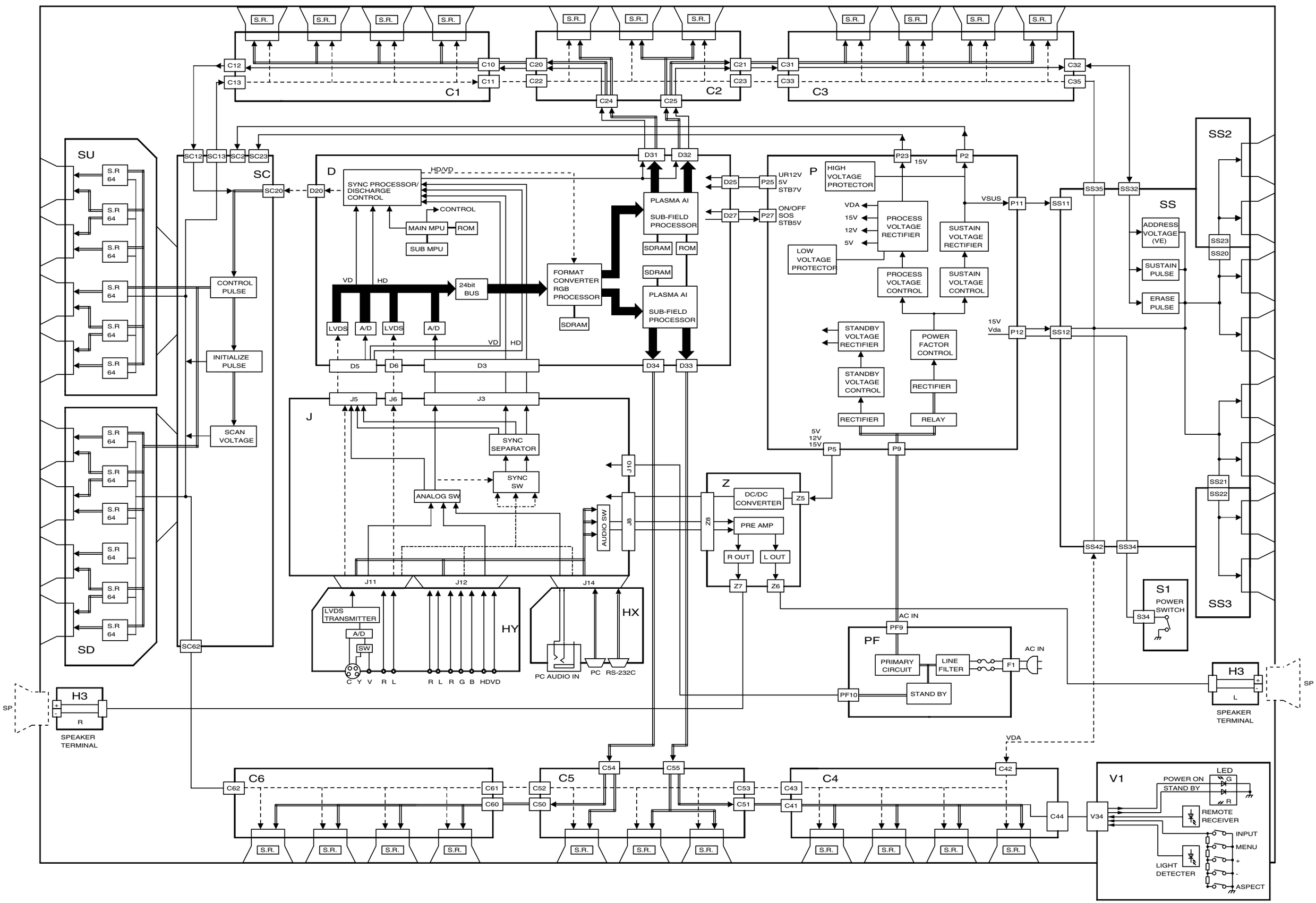
AV

TH-50PHD6/TH-50PHW6
HY-BOARD Block Diagram

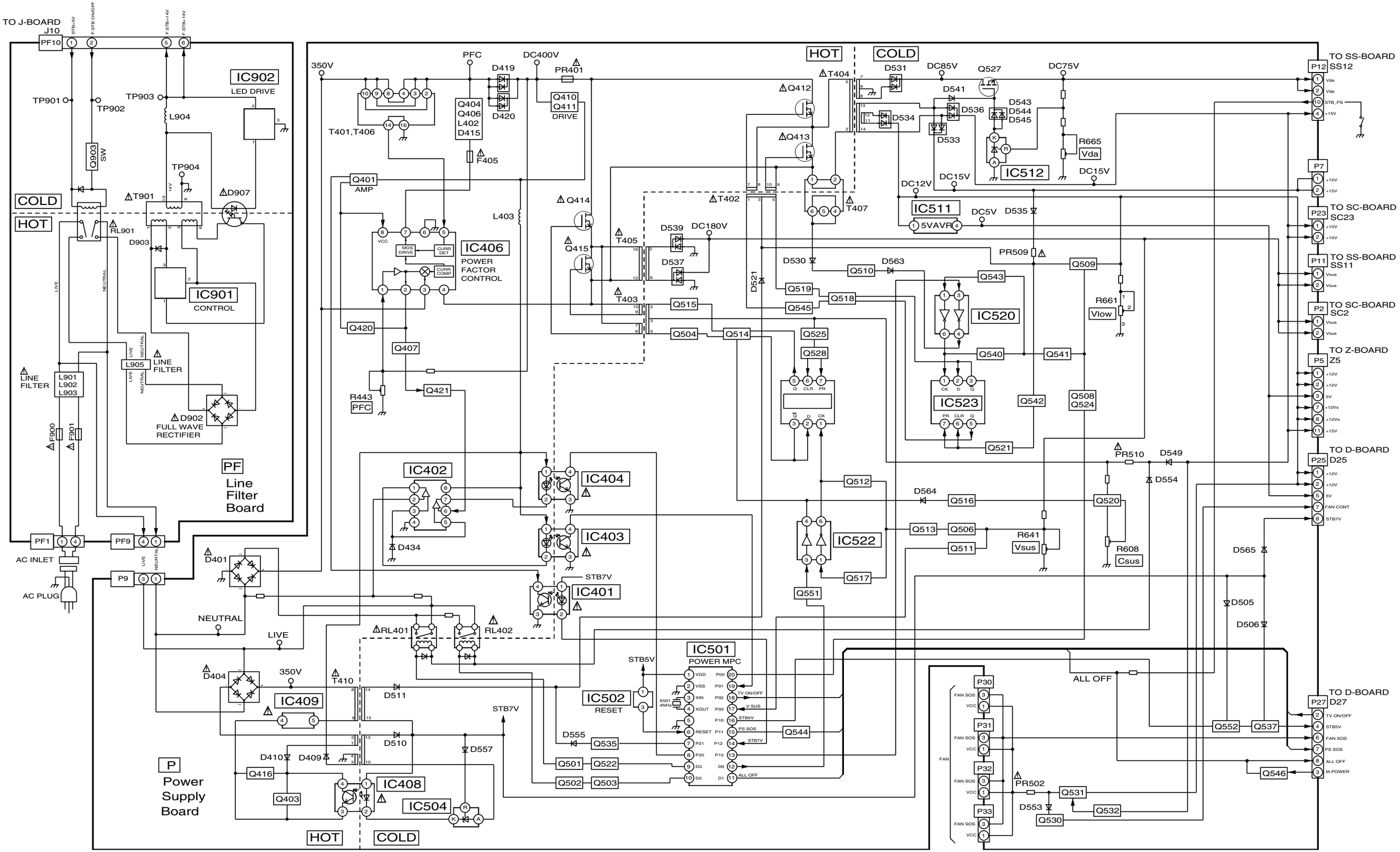


TH-50PHD6/TH-50PHW6 J-BOARD Block Diagram

TH-50PHD6/TH-50PHW6 J-BOARD Block Diagram

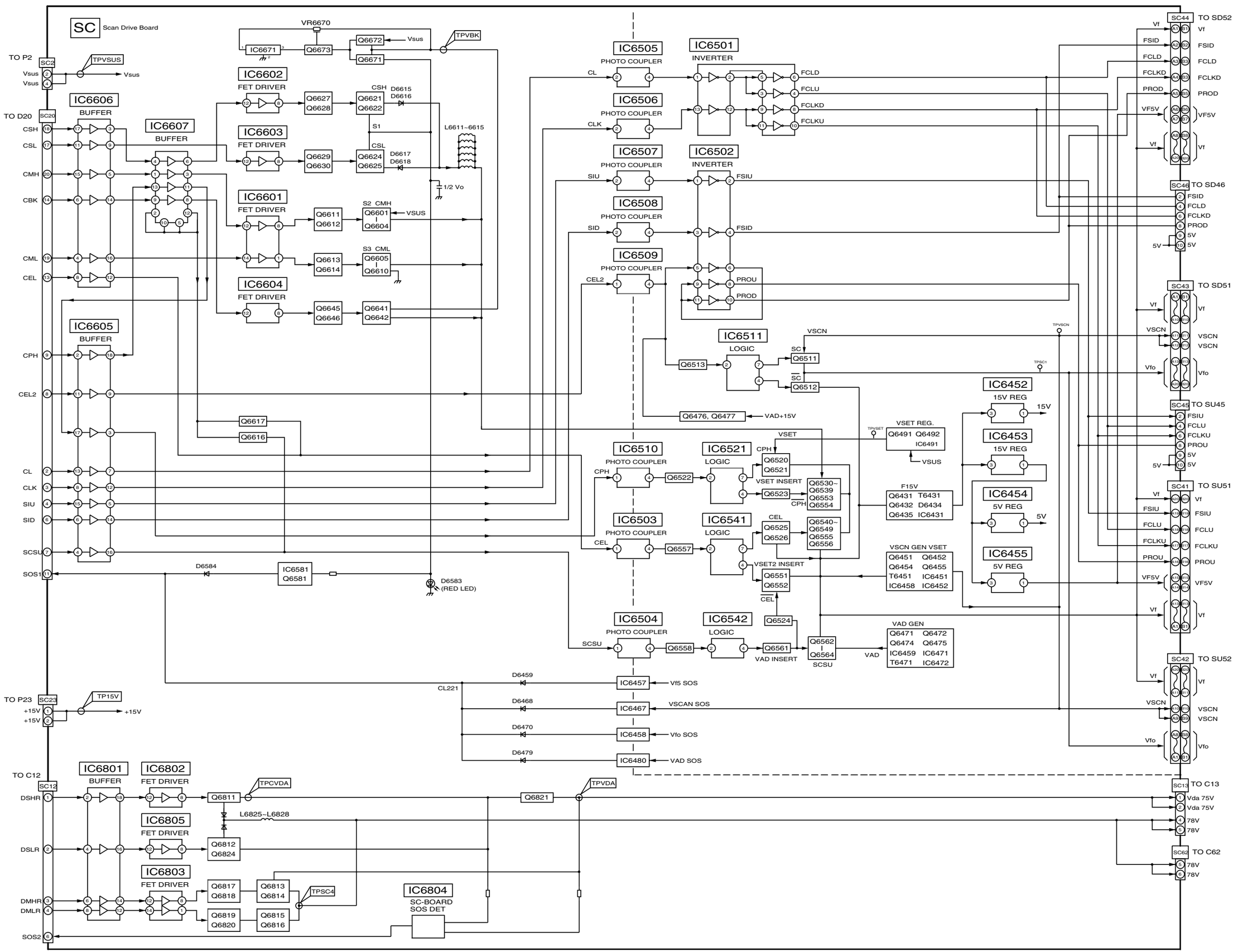


TH-50PHD6/TH-50PHW6 MAIN Block Diagram

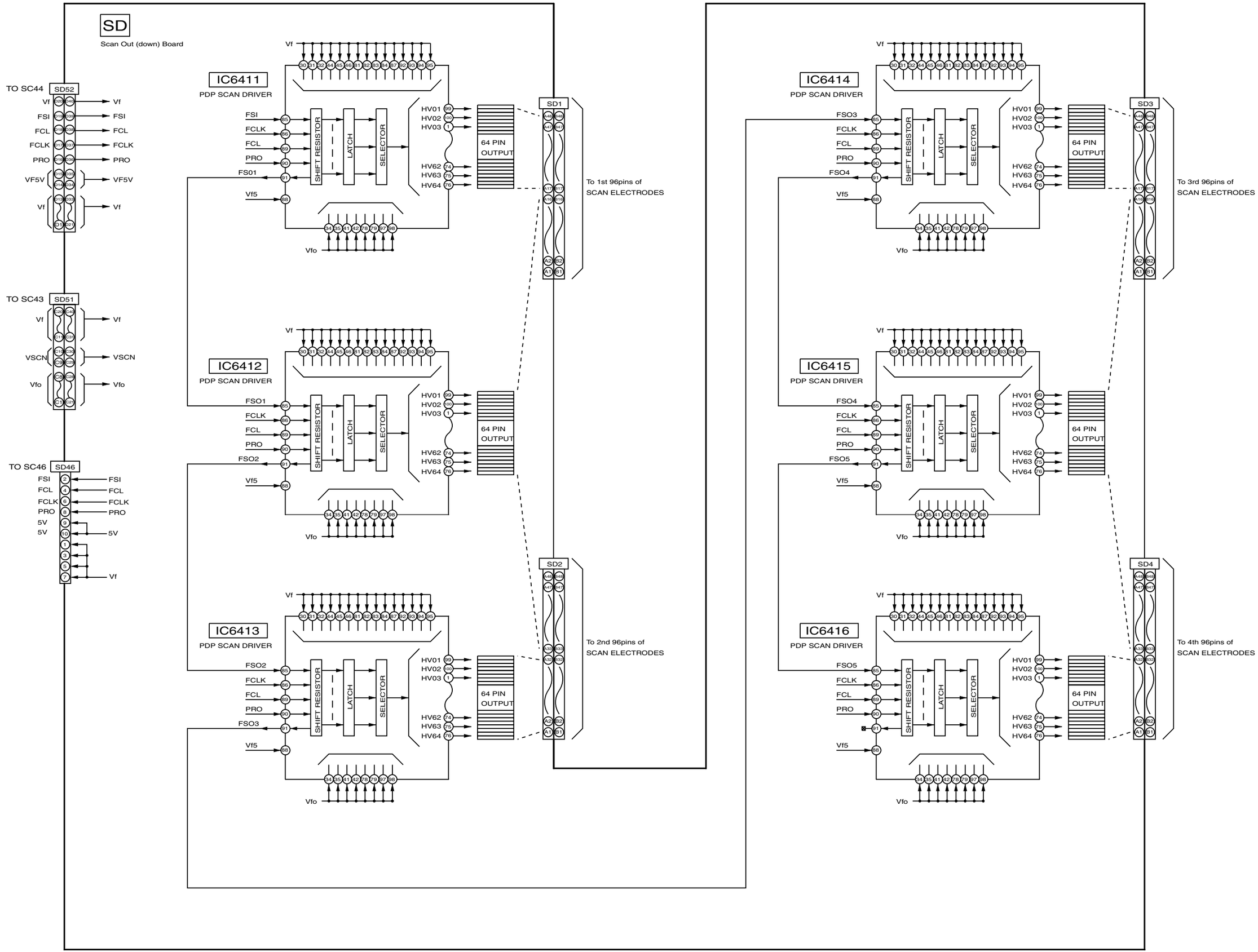


TH-50PHD6/TH-50PHW6
POWER BOARD Block Diagram

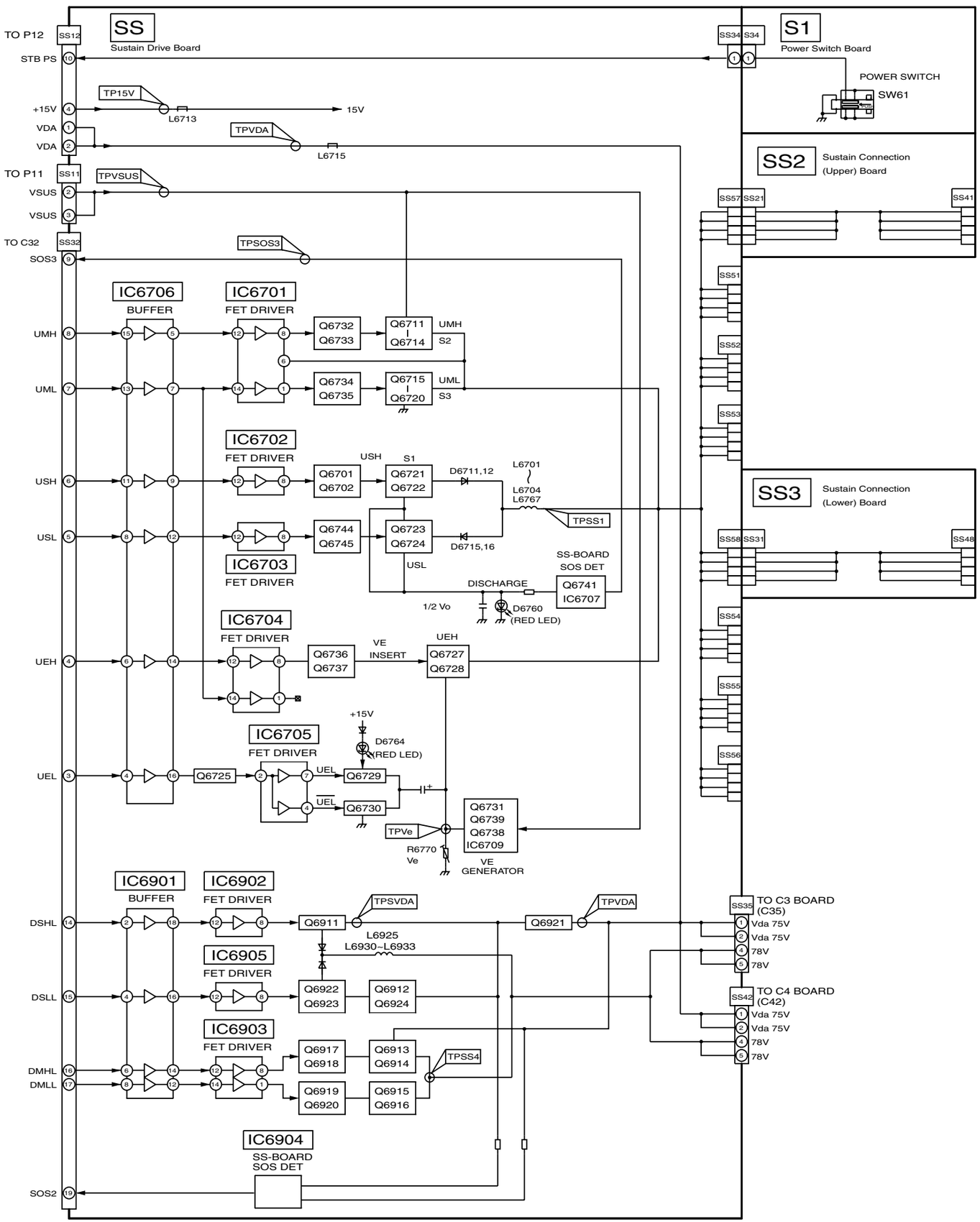
TH-50PHD6/TH-50PHW6
POWER BOARD Block Diagram



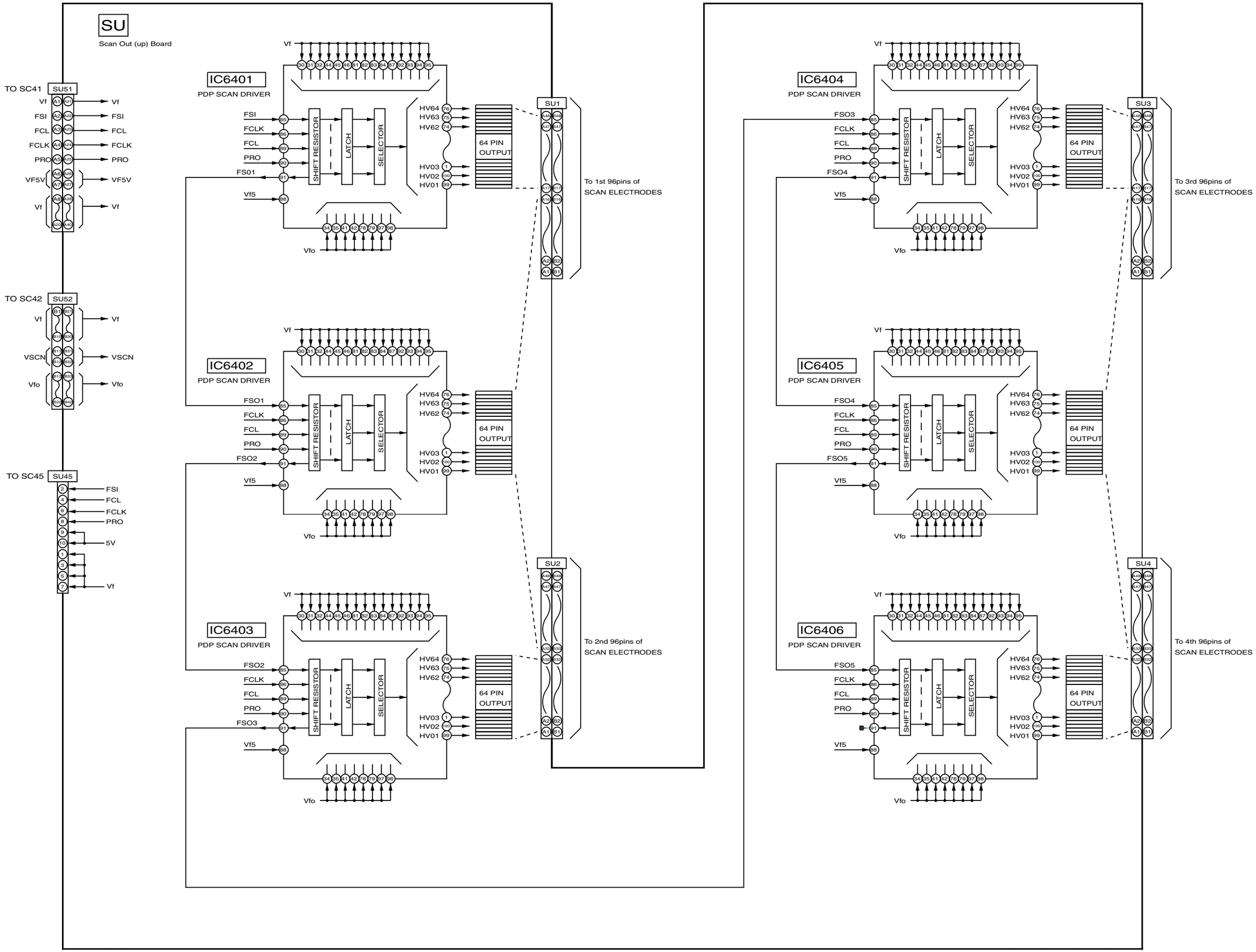
TH-50PHD6/TH-50PHW6 SC-BOARD Block Diagram



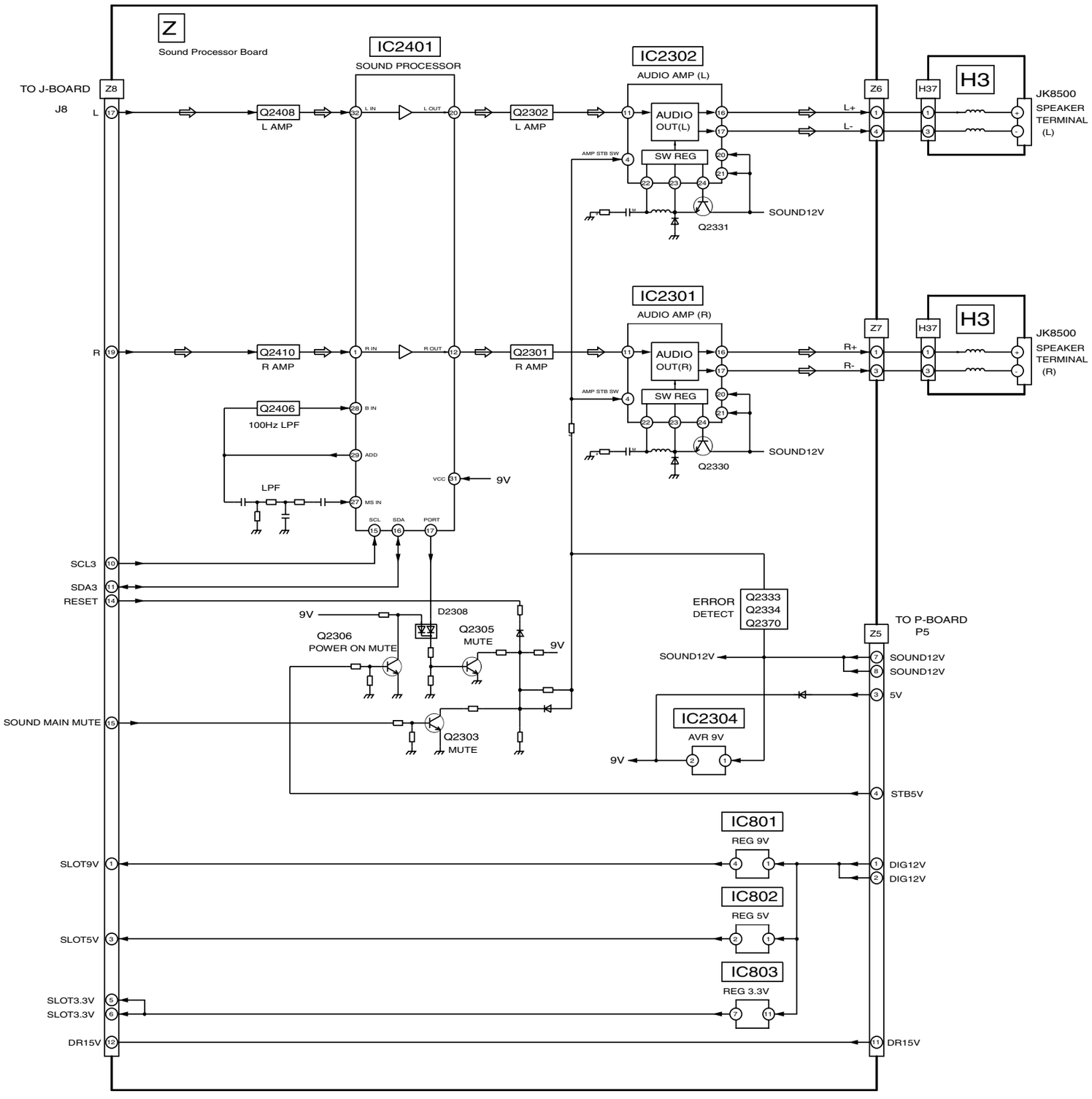
TH-50PHD6/TH-50PHW6 SC-BOARD Block Diagram



TH-50PHD6/TH-50PHW6 SS, S1, SS2 and SS3-BOARD Block Diagram

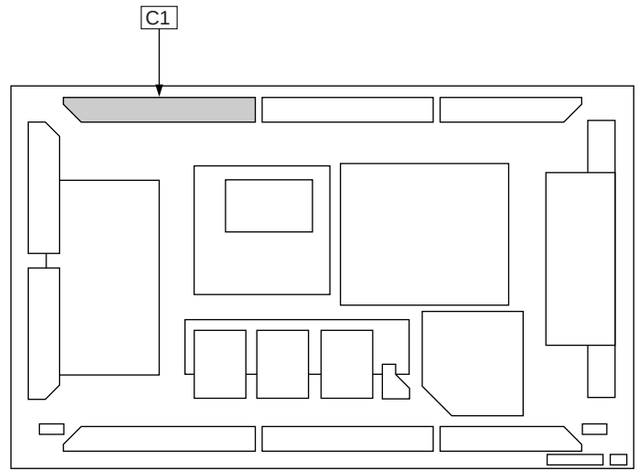


TH-50PHD6/TH-50PHW6 SU-BOARD Block Diagram

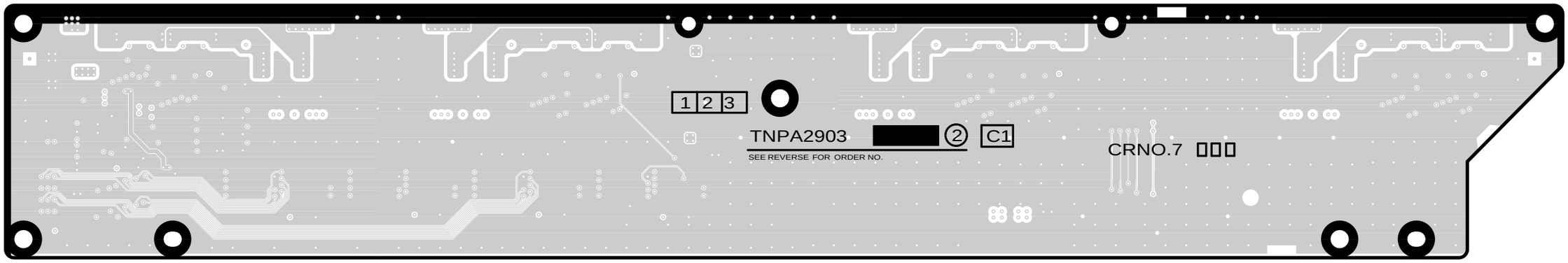


TH-50PHD6/TH-50PHW6
Z and H3-BOARD Block Diagram

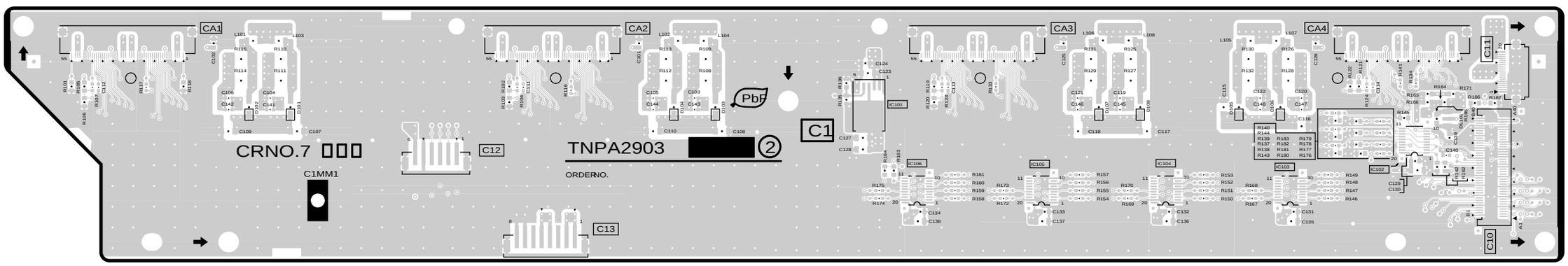
TH-50PHD6/TH-50PHW6
Z and H3-BOARD Block Diagram



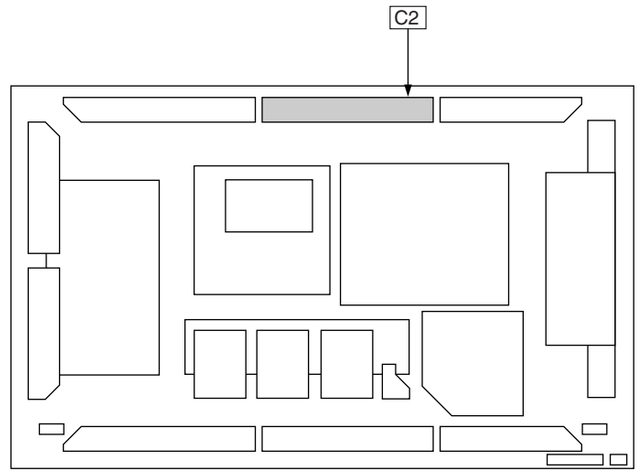
C1-BOARD(FOIL SIDE)
TNPA2903



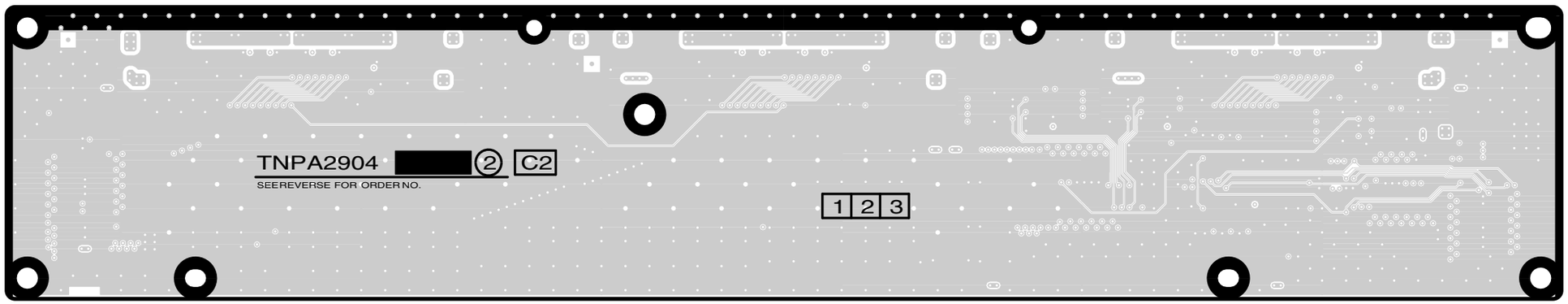
C1-BOARD(COMPONENT SIDE)
TNPA2903



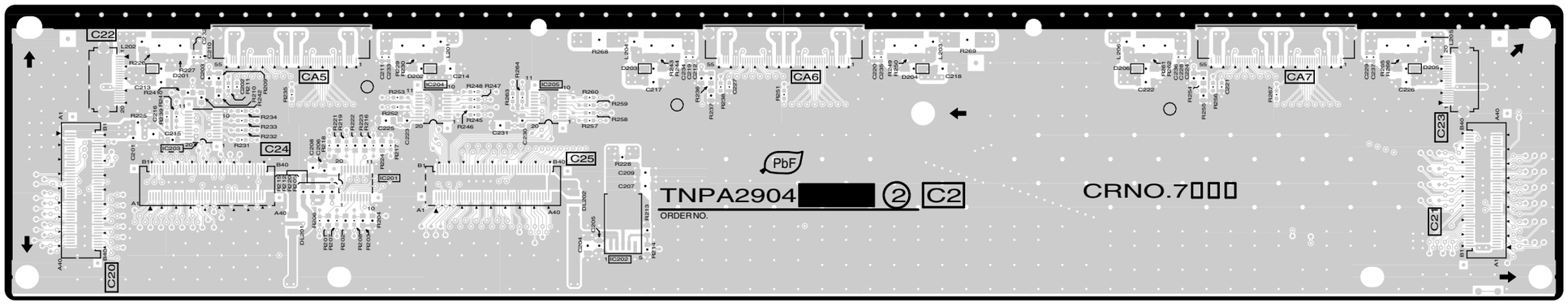
TH-50PHD6/TH-50PHW6
C1-BOARD TNPA2903



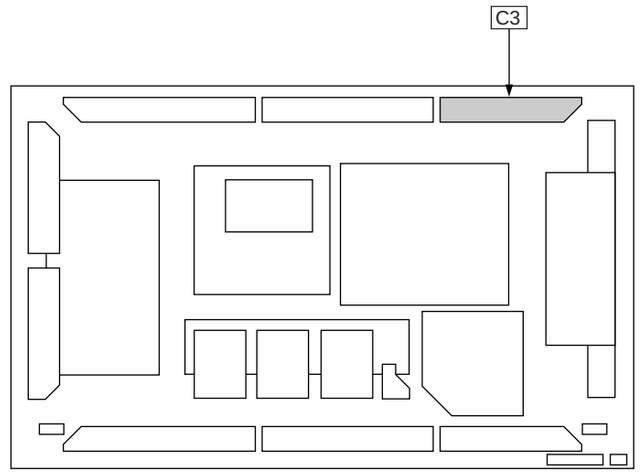
C2-BOARD(FOIL SIDE)
TNPA2904



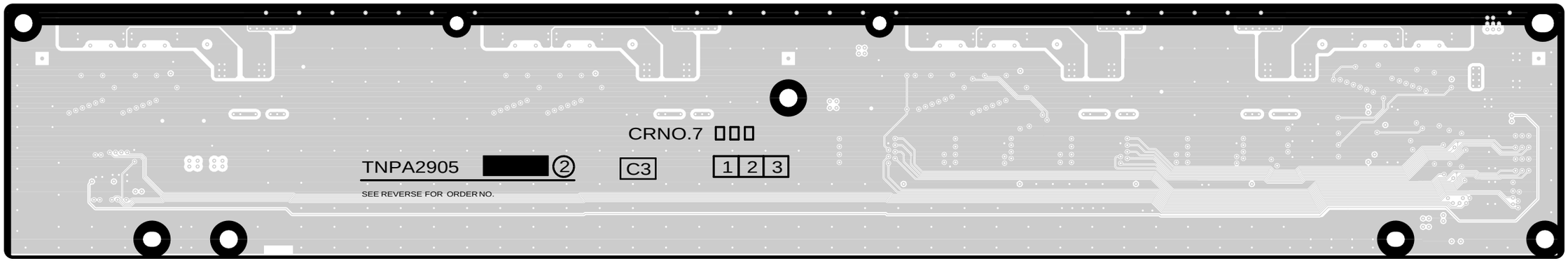
C2-BOARD(COMPONENT SIDE)
TNPA2904



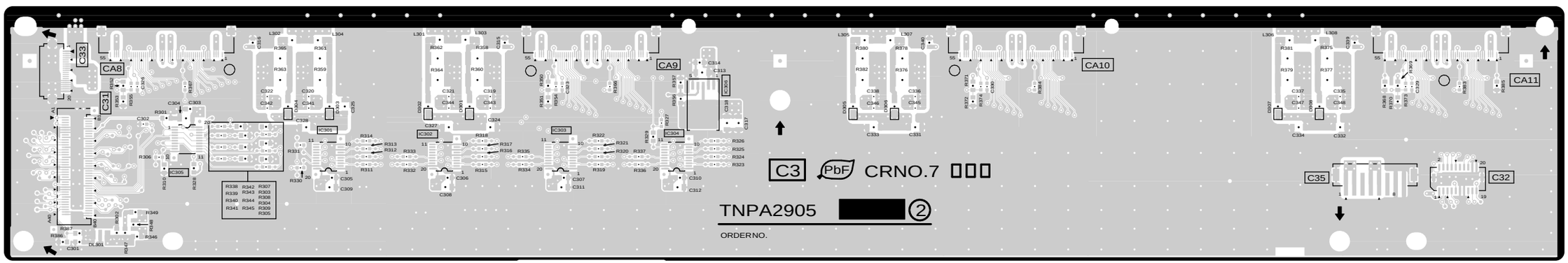
TH-50PHD6/TH-50PHW6
C2-BOARD TNPA2904



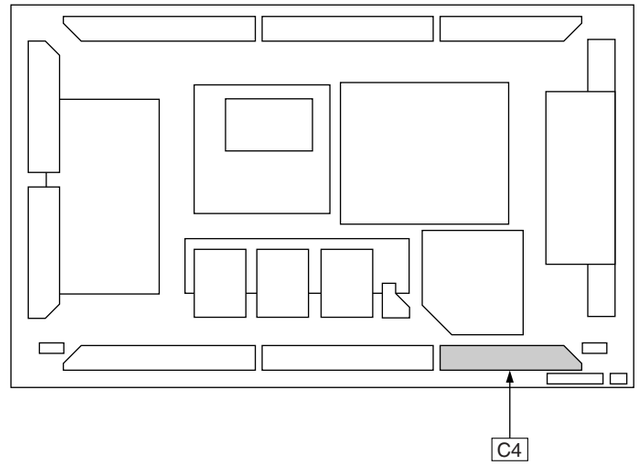
C3-BOARD(FOIL SIDE)
TNPA2905



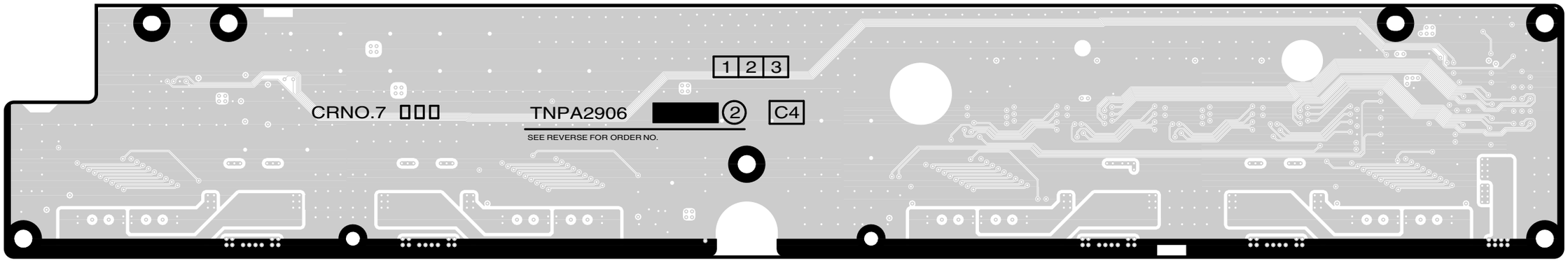
C3-BOARD(COMPONENT SIDE)
TNPA2905



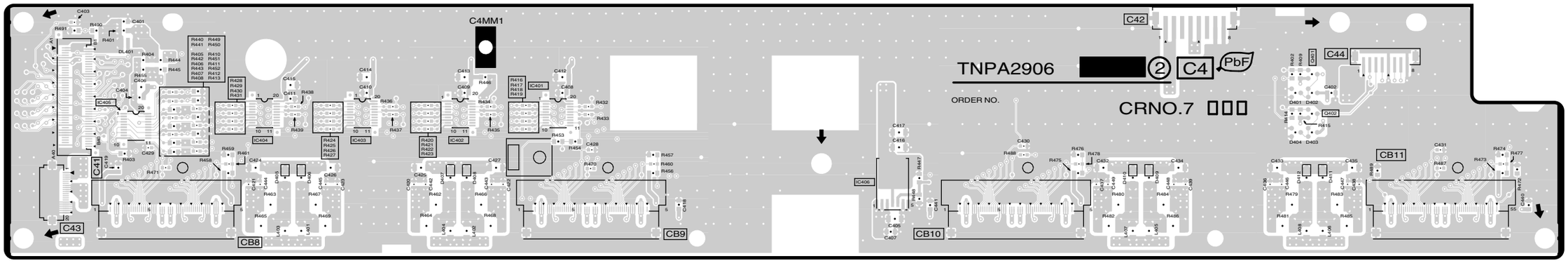
TH-50PHD6/TH-50PHW6
C3-BOARD TNPA2905



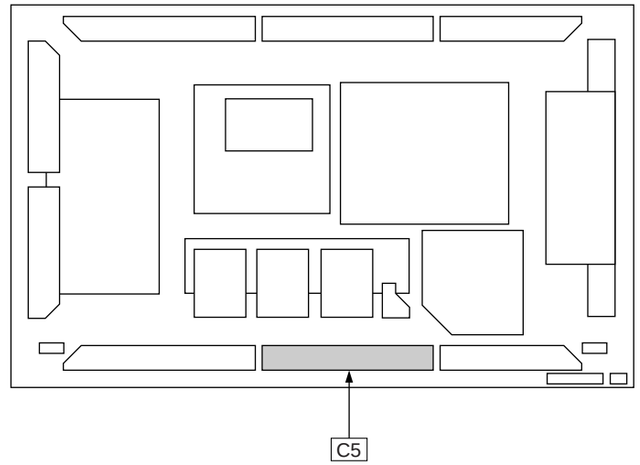
C4-BOARD(FOIL SIDE)
TNPA2906



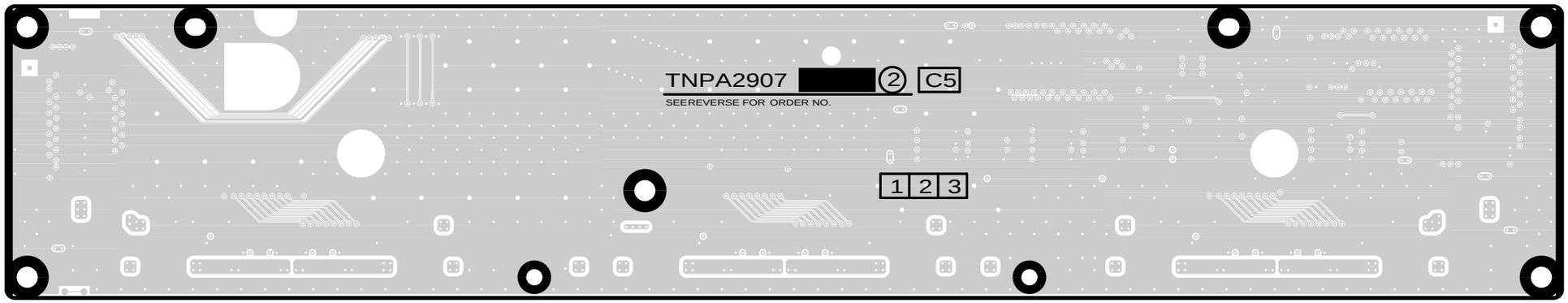
C4-BOARD(COMPONENT SIDE)
TNPA2906



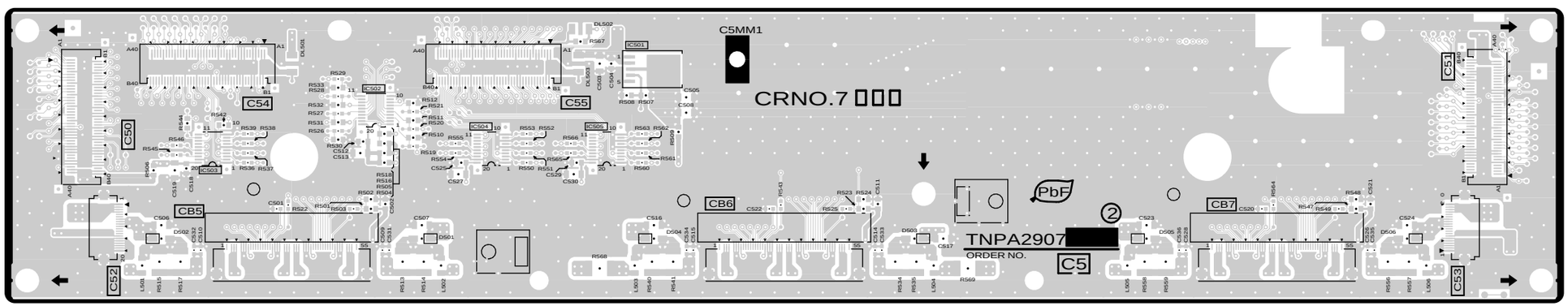
TH-50PHD6/TH-50PHW6
C3-BOARD TNPA2906



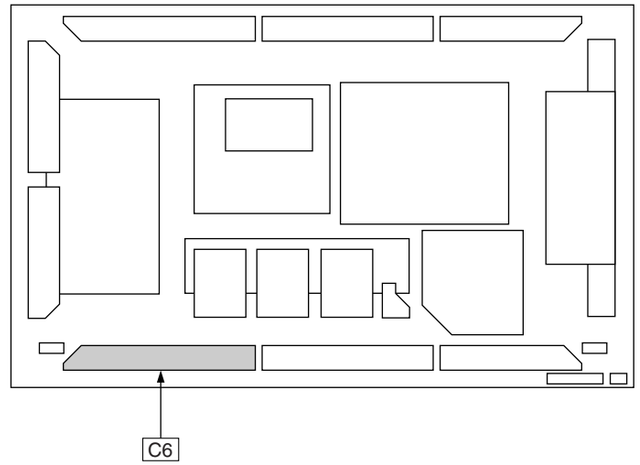
C5-BOARD(FOIL SIDE)
TNPA2907



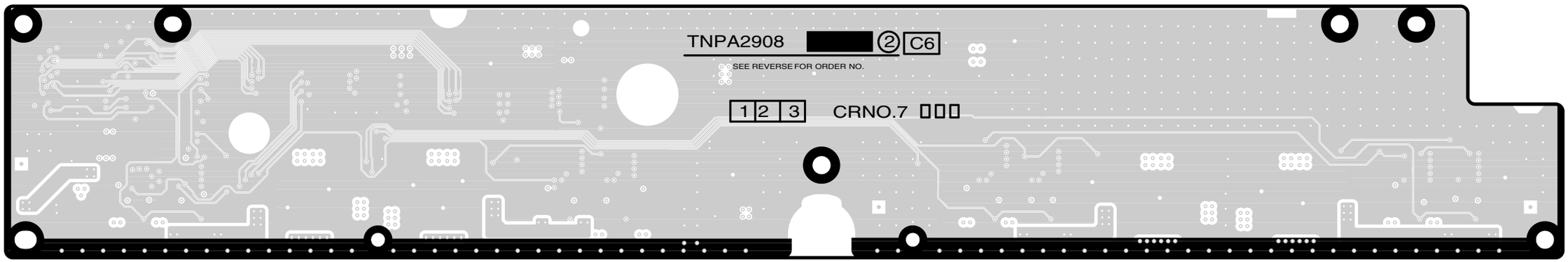
C5-BOARD(COMPONENT SIDE)
TNPA2907



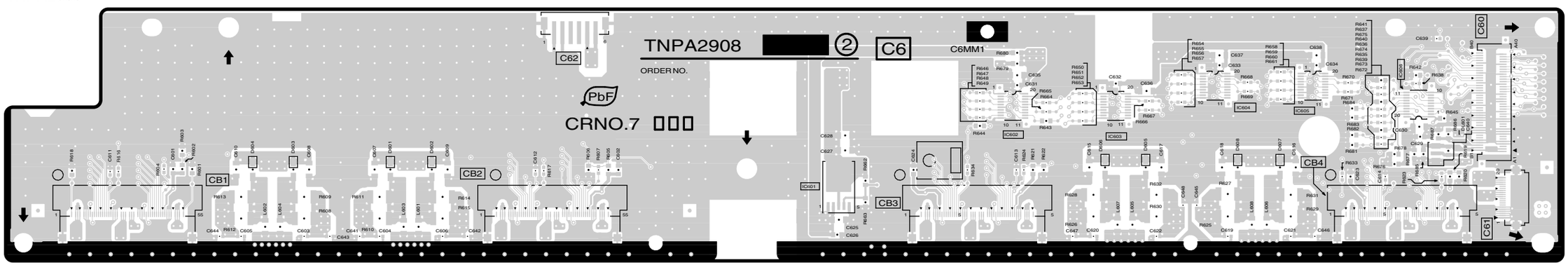
TH-50PHD6/TH-50PHW6
C5-BOARD TNPA2907



C6-BOARD(FOIL SIDE)
TNPA2908

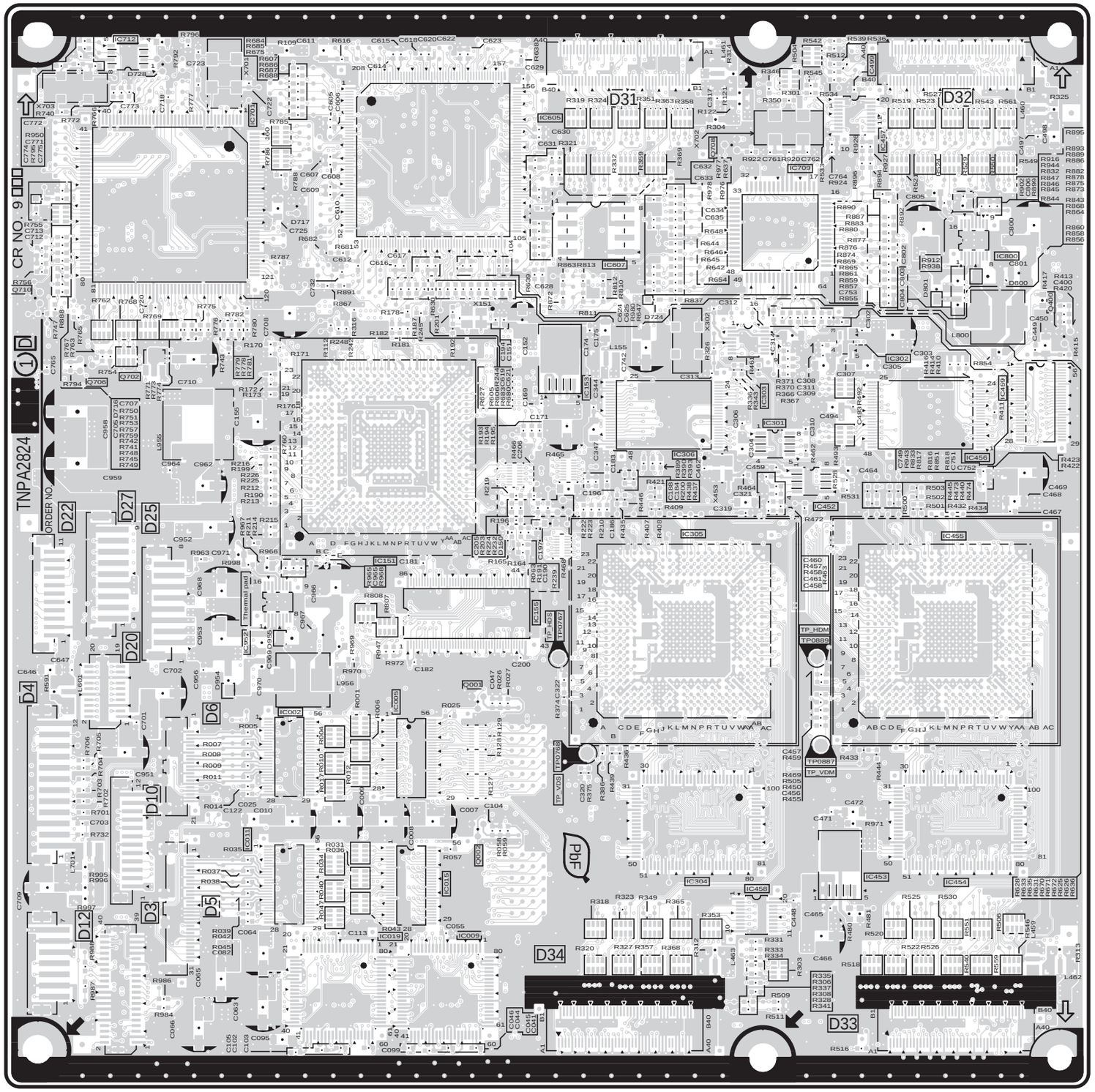


C6-BOARD(COMPONENT SIDE)
TNPA2908



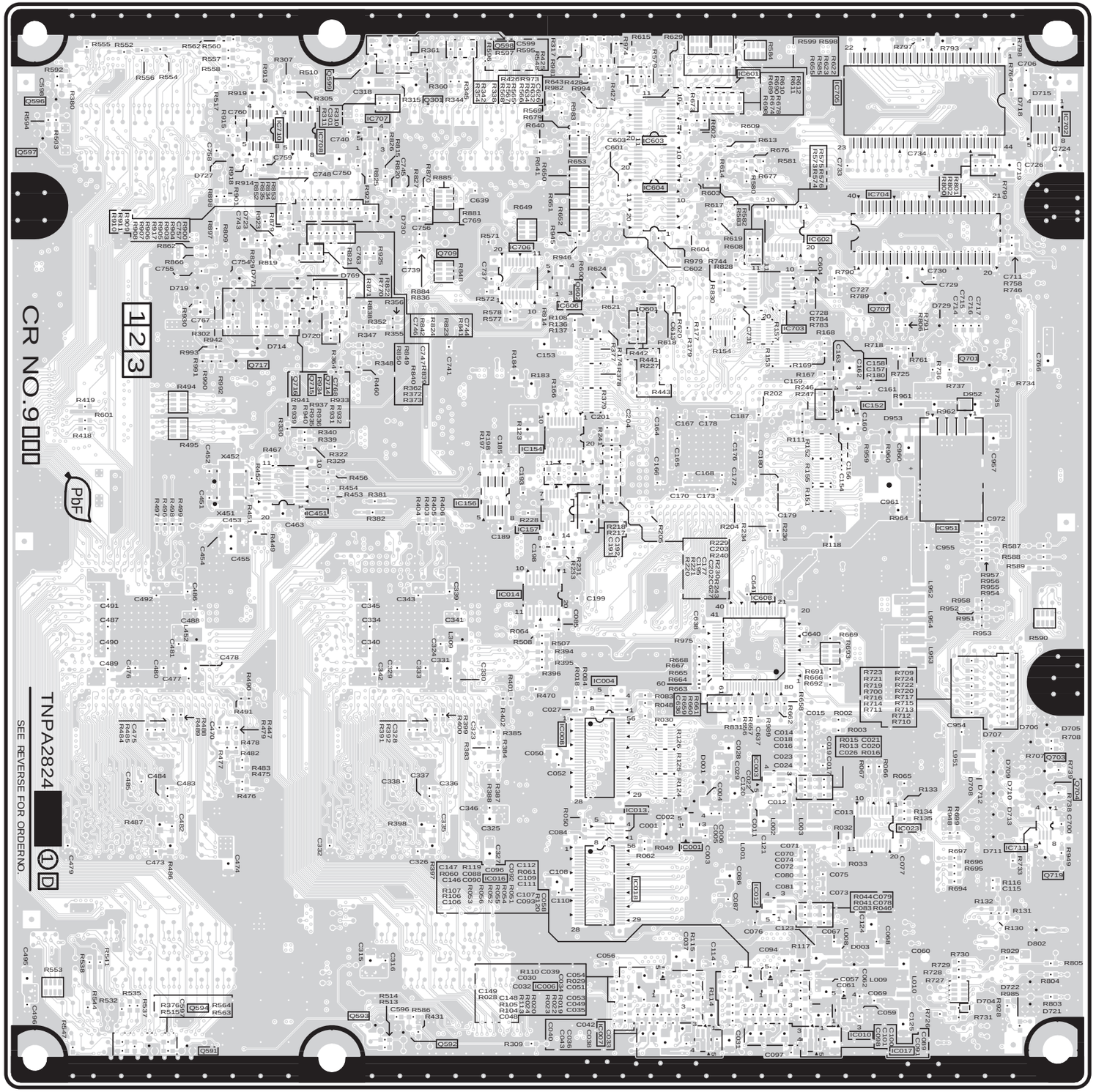
TH-50PHD6/TH-50PHW6
C6-BOARD TNPA2908

D-BOARD(COMPONENT SIDE)
TXN/D10QMS



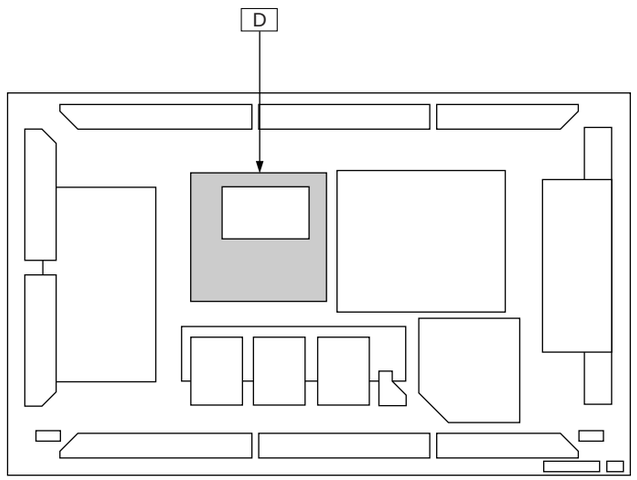
TH-50PHD6/TH-50PHW6
D-BOARD TXN/D10QMS

D-BOARD(FOIL SIDE)
TXN/D10QMS



TH-50PHD6/TH-50PHW6
D-BOARD TXN/D10QMS

TH-50PHD6/TH-50PHW6
D-BOARD TXN/D10QMS



Parts Location

D-BOARD (FOIL SIDE)

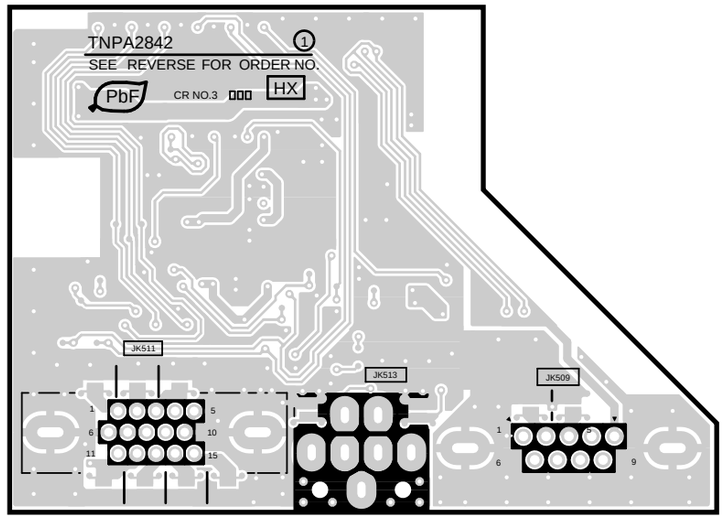
IC		IC603	D-6	TRANSISTOR	
IC001	D-2	IC604	D-5	Q301	C-6
IC003	E-2	IC606	D-5	Q591	B-1
IC004	D-3	IC608	E-3	Q592	C-1
IC006	D-1	IC702	F-6	Q593	C-1
IC007	D-1	IC703	E-5	Q594	B-1
IC008	D-3	IC704	E-5	Q596	A-6
IC010	E-1	IC705	E-6	Q597	A-6
IC012	E-2	IC706	C-5	Q598	C-6
IC013	D-2	IC707	C-6	Q599	C-6
IC014	C-3	IC708	B-6	Q601	D-5
IC016	C-2	IC710	B-6	Q602	D-5
IC017	E-1	IC711	F-2	Q701	F-4
IC018	D-2	IC951	F-4	Q703	F-3
IC023	E-2			Q704	F-2
IC152	E-4			Q707	E-5
IC154	C-4			Q709	C-5
IC156	C-4			Q714	B-4
IC157	C-4			Q715	B-4
IC451	B-4			Q716	B-4
IC601	D-6			Q717	B-4
IC602	E-5			Q719	F-2

Parts Location

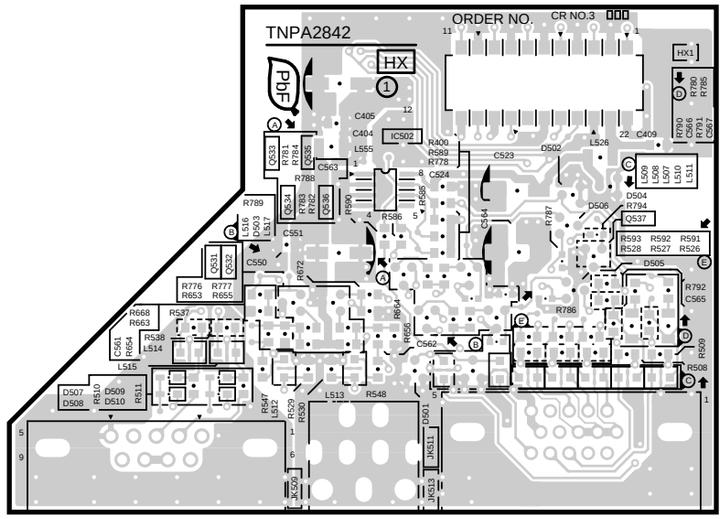
D-BOARD (COMPONENT SIDE)

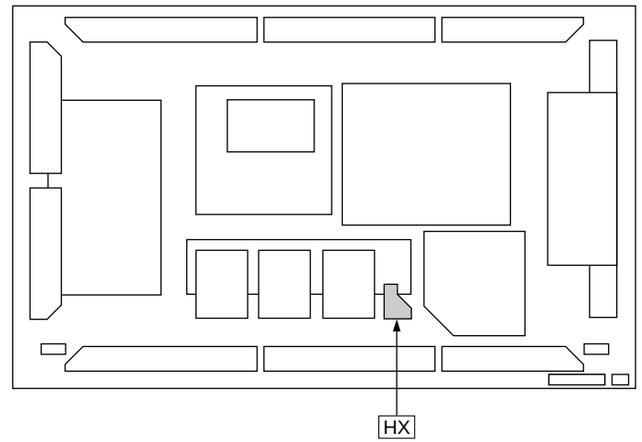
IC		IC458	E-2	TRANSISTOR	
IC002	B-3	IC459	F-4	Q001	C-3
IC005	C-3	IC605	C-6	Q002	C-2
IC009	C-2	IC607	D-5	Q400	F-5
IC011	B-2	IC701	B-6	Q702	A-4
IC015	C-2	IC709	E-5	Q706	A-4
IC019	C-2	IC712	A-6	Q708	D-6
IC151	C-4	IC800	F-5	Q710	A-5
IC153	D-4	IC952	B-3	**TP**	
IC155	C-3			TP0767	D-3
IC301	E-4			TP0768	D-3
IC302	E-4			TP0887	E-3
IC303	E-4			TP0889	E-3
IC304	D-2				
IC305	D-4				
IC306	D-4				
IC452	E-4				
IC453	E-2				
IC454	F-2				
IC455	F-3				
IC456	F-4				
IC457	E-6				

HX-BOARD(FOIL SIDE)
TXNHX10QBS



HX-BOARD(COMPONENT SIDE)
TXNHX10QBS



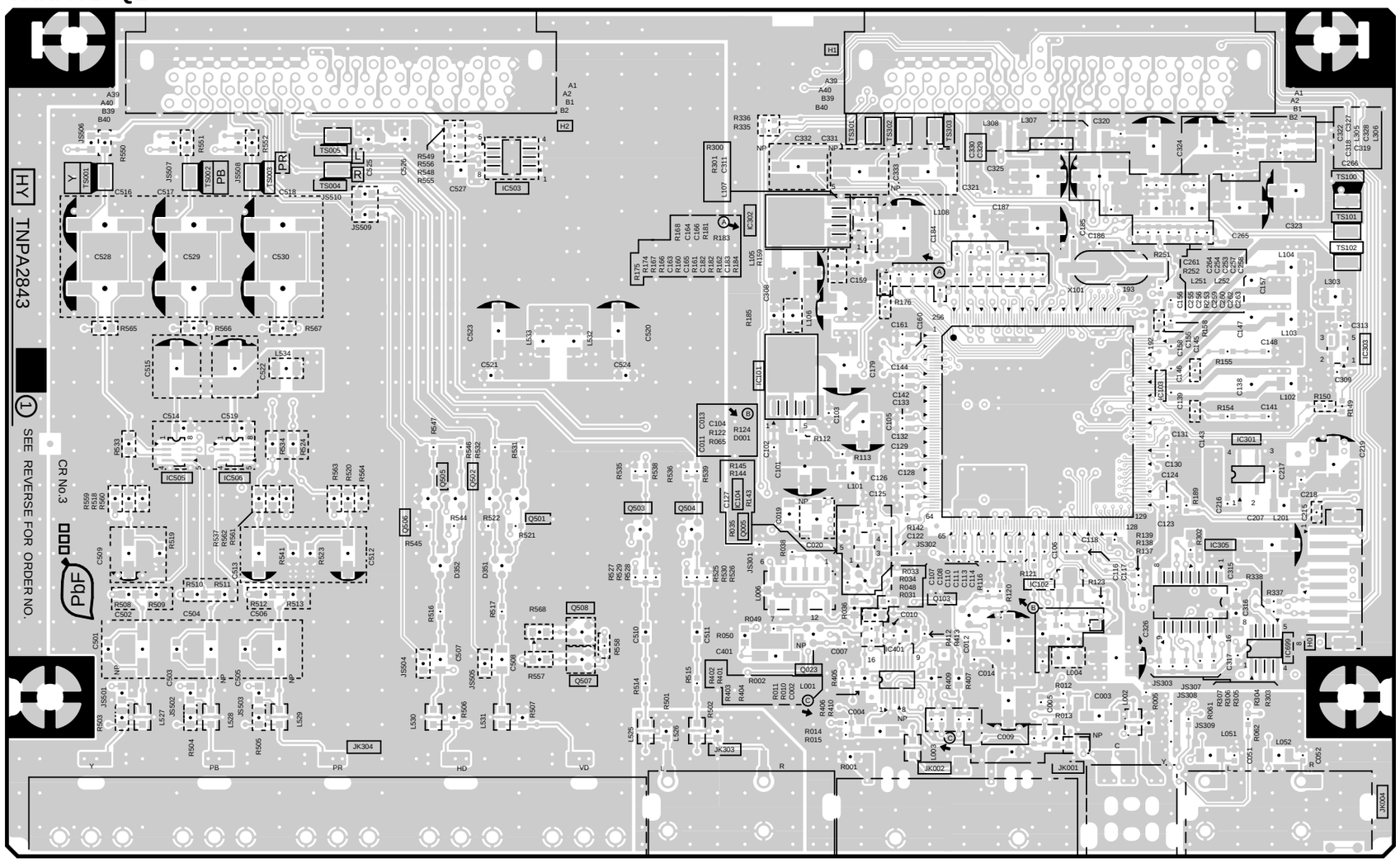


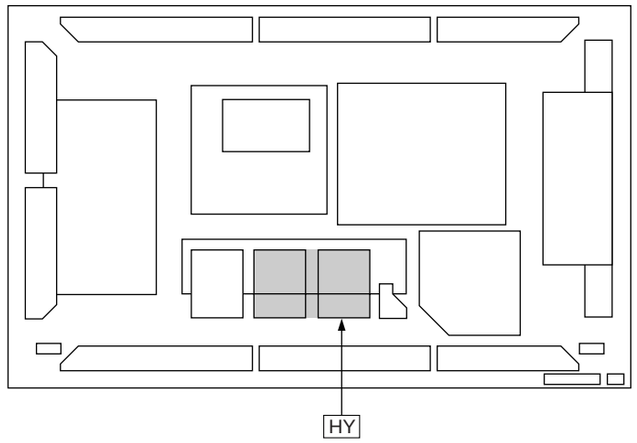
Parts Location

HX-BOARD			
IC		**TRANSISTOR**	
IC3502	E-4	Q3531	D-4
		Q3532	D-4
		Q3533	E-4
		Q3534	E-4
		Q3535	E-4
		Q3536	E-4
		Q3537	F-4

TH-50PHD6/TH-50PHW6
HX-BOARD TXNHX10QBS

HY-BOARD(COMPONENT SIDE)
TXNHY10QBS



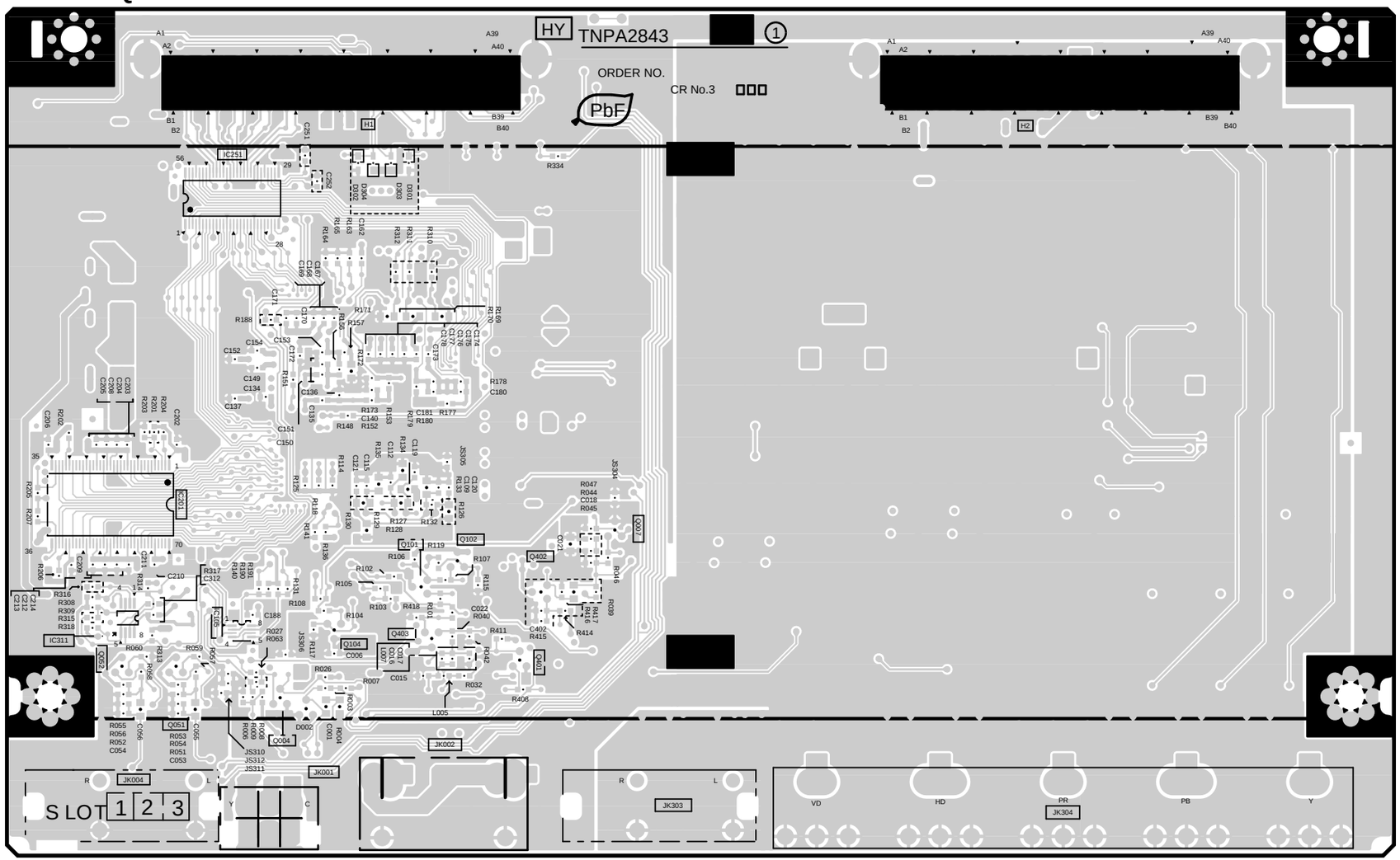


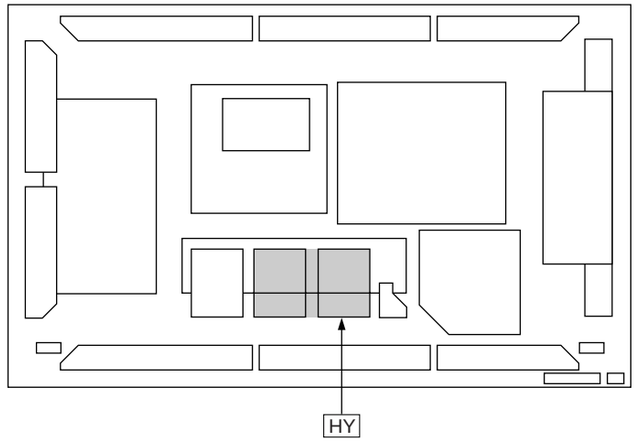
Parts Location

HY-BOARD (COMPONENT SIDE)			
IC		**TRANSISTOR**	
IC3101	D-4	Q3005	D-3
IC3102	E-3	Q3023	D-2
IC3103	E-3	Q3103	E-3
IC3104	D-3	Q3501	C-3
IC3301	F-3	Q3502	C-3
IC3302	D-4	Q3503	D-3
IC3303	G-4	Q3504	D-3
IC3305	F-3	Q3505	C-3
IC3401	E-2	Q3506	C-3
IC3503	C-5	Q3507	C-2
IC3505	B-3	Q3508	C-3
IC3506	B-3	**TP**	
IC3699	F-2	TS001	A-5
		TS002	B-5
		TS003	B-5
		TS004	B-6
		TS005	B-7
		TS100	G-4
		TS101	G-4
		TS102	G-4
		TS301	E-5
		TS302	E-5
		TS303	E-5

TH-50PHD6/TH-50PHW6
HY-BOARD TXNHY10QBS

HY-BOARD(FOIL SIDE)
TXNHY10QBS

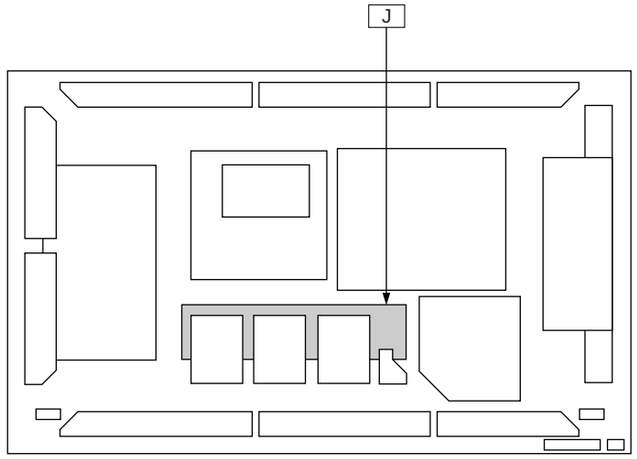




Parts Location

HY-BOARD (FOIL SIDE)			
IC		**TRANSISTOR**	
IC3105	B-3	Q3004	B-2
IC3201	A-3	Q3007	D-3
IC3251	B-4	Q3051	A-2
IC3311	A-3	Q3052	A-2
		Q3101	C-3
		Q3102	C-3
		Q3104	B-2
		Q3401	C-2
		Q3402	C-3
		Q3403	B-3

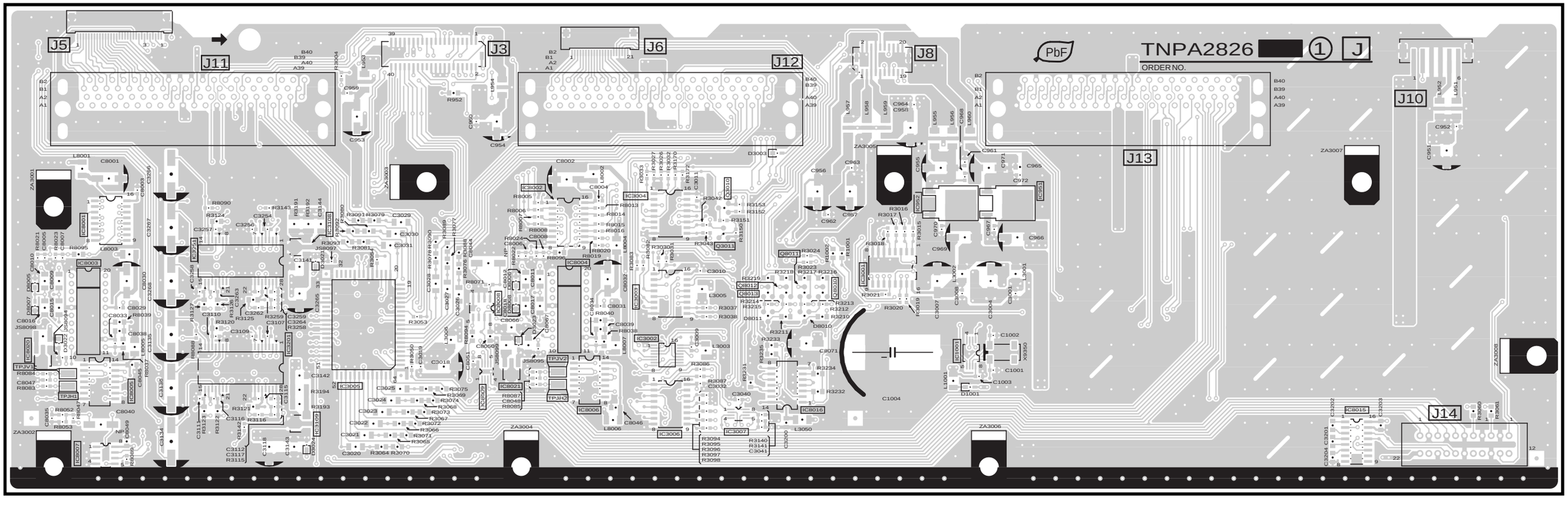
TH-50PHD6/TH-50PHW6
HY-BOARD TXNHY10QBS



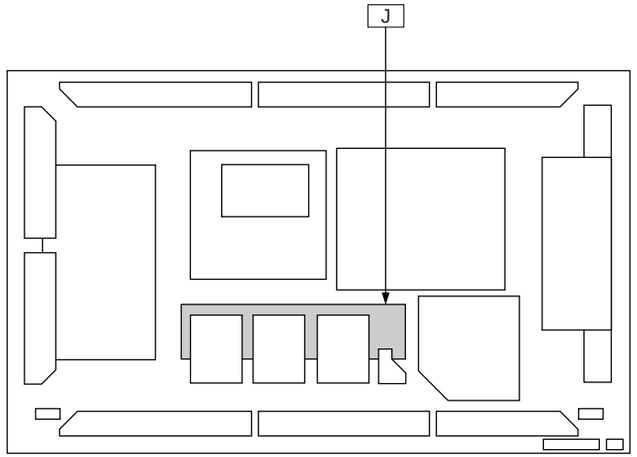
Parts Location

J-BOARD (COMPONENT SIDE)			
IC		**TRANSISTOR**	
IC1001	F-2	Q3010	E-3
IC3001	F-2	Q3011	E-3
IC3002	D-2	Q8010	E-2
IC3003	D-2	Q8011	E-2
IC3004	D-3	Q8012	E-2
IC3005	C-2	Q8013	E-2
IC3006	D-2	**TP**	
IC3007	E-1	TPJH1	A-2
IC3108	B-2	TPJH2	D-2
IC3109	B-1	TPJV1	A-2
IC3201	B-2	TPJV2	D-2
IC3251	B-2		
IC8001	A-3		
IC8002	D-3		
IC8003	A-2		
IC8004	D-2		
IC8005	A-2		
IC8006	D-2		
IC8007	A-1		
IC8008	C-2		
IC8009	C-2		
IC8015	H-1		
IC8016	E-2		
IC8020	A-2		
IC8021	D-2		
IC951	F-3		
IC952	F-3		

J-BOARD(COMPONENT SIDE)
TNPA2826



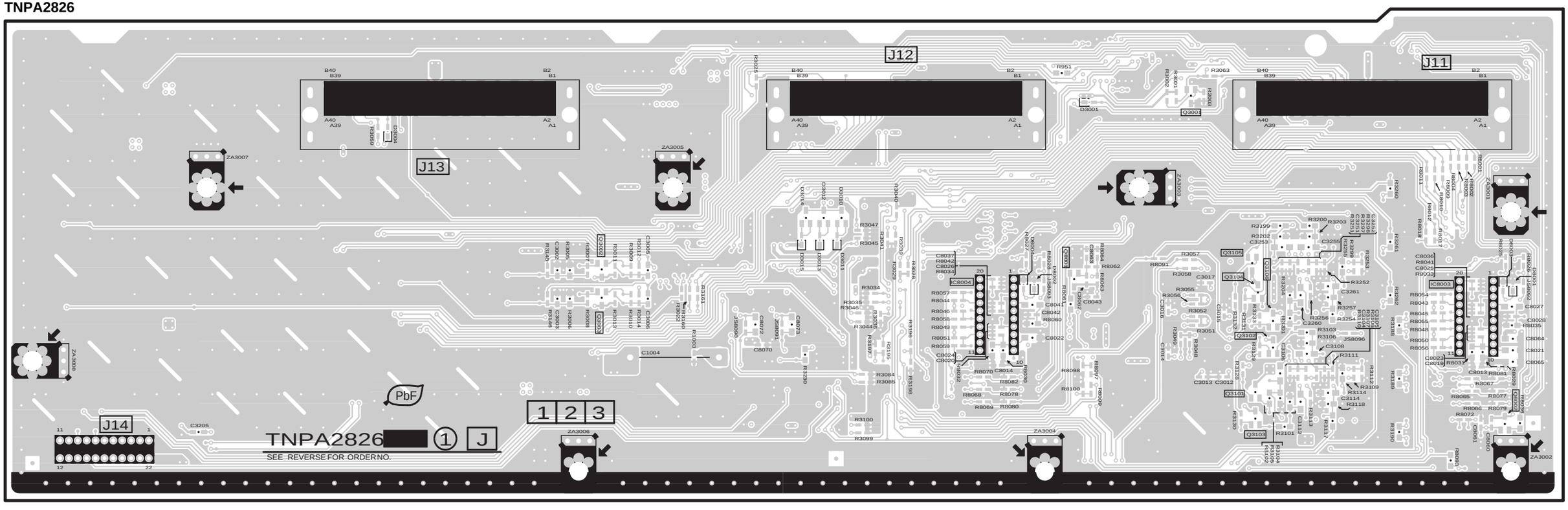
TH-50PHD6/TH-50PHW6
J-BOARD TNPA2826



Parts Location

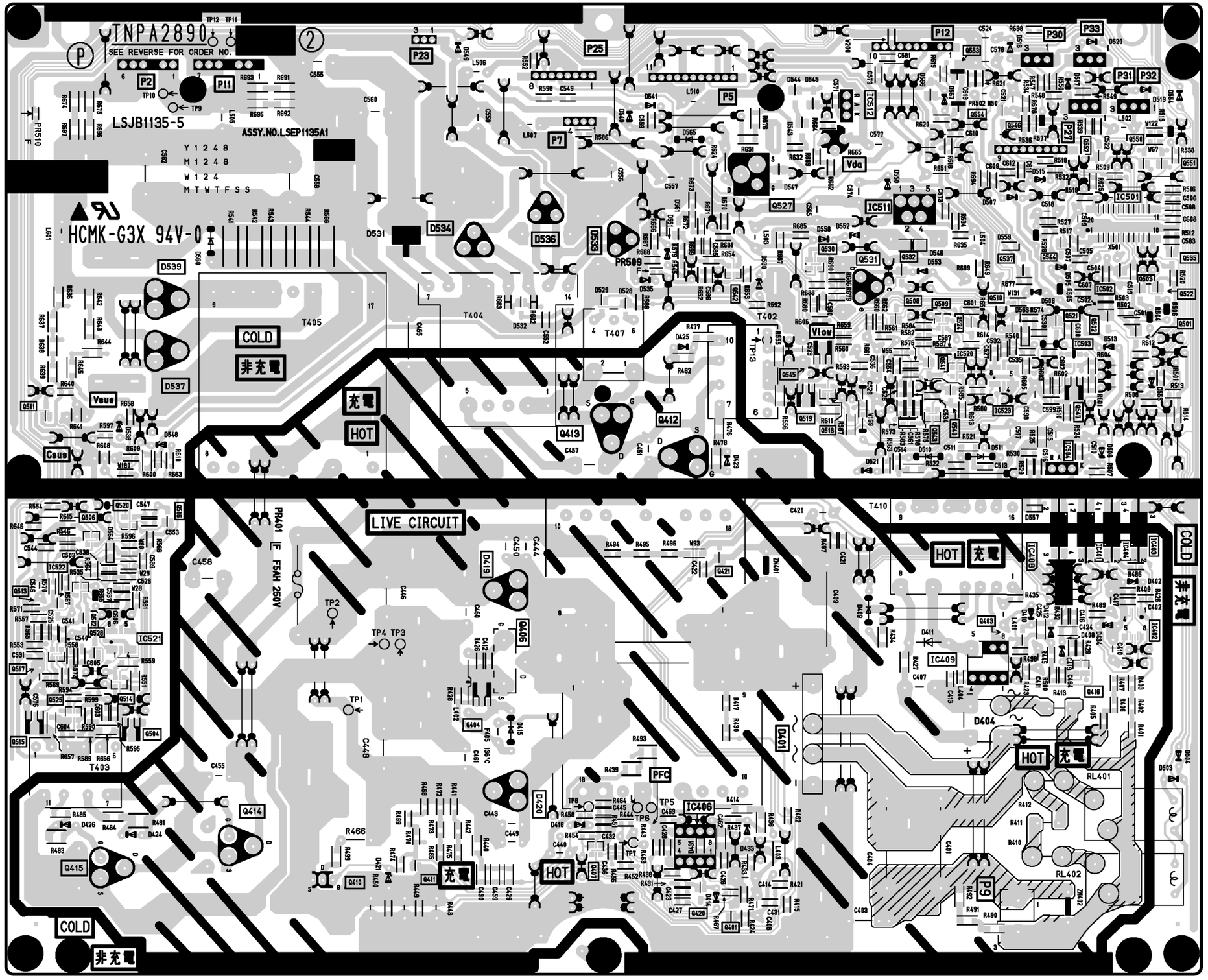
J-BOARD (FOIL SIDE)			
IC		**TRANSISTOR**	
IC8003	I-2	Q3001	G-3
IC8004	F-2	Q3002	D-2
		Q3003	D-2
		Q3101	H-2
		Q3102	H-2
		Q3103	H-1
		Q3104	H-2
		Q3105	H-2
		Q3106	H-2
		Q8001	G-2
		Q8002	I-2

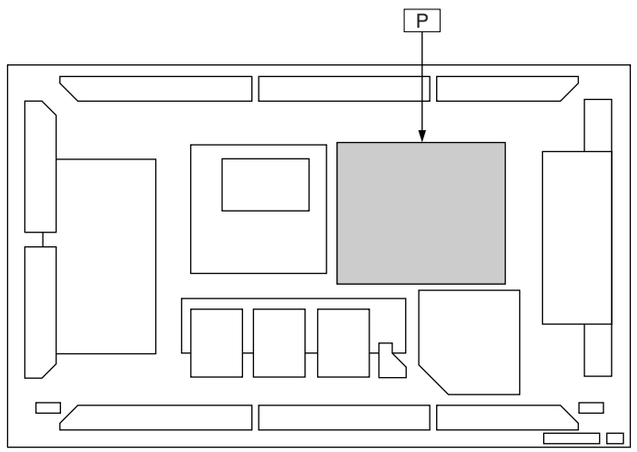
J-BOARD (FOIL SIDE)
TNPA2826



TH-50PHD6/TH-50PHW6
J-BOARD TNPA2826

P-BOARD
TNPA2890



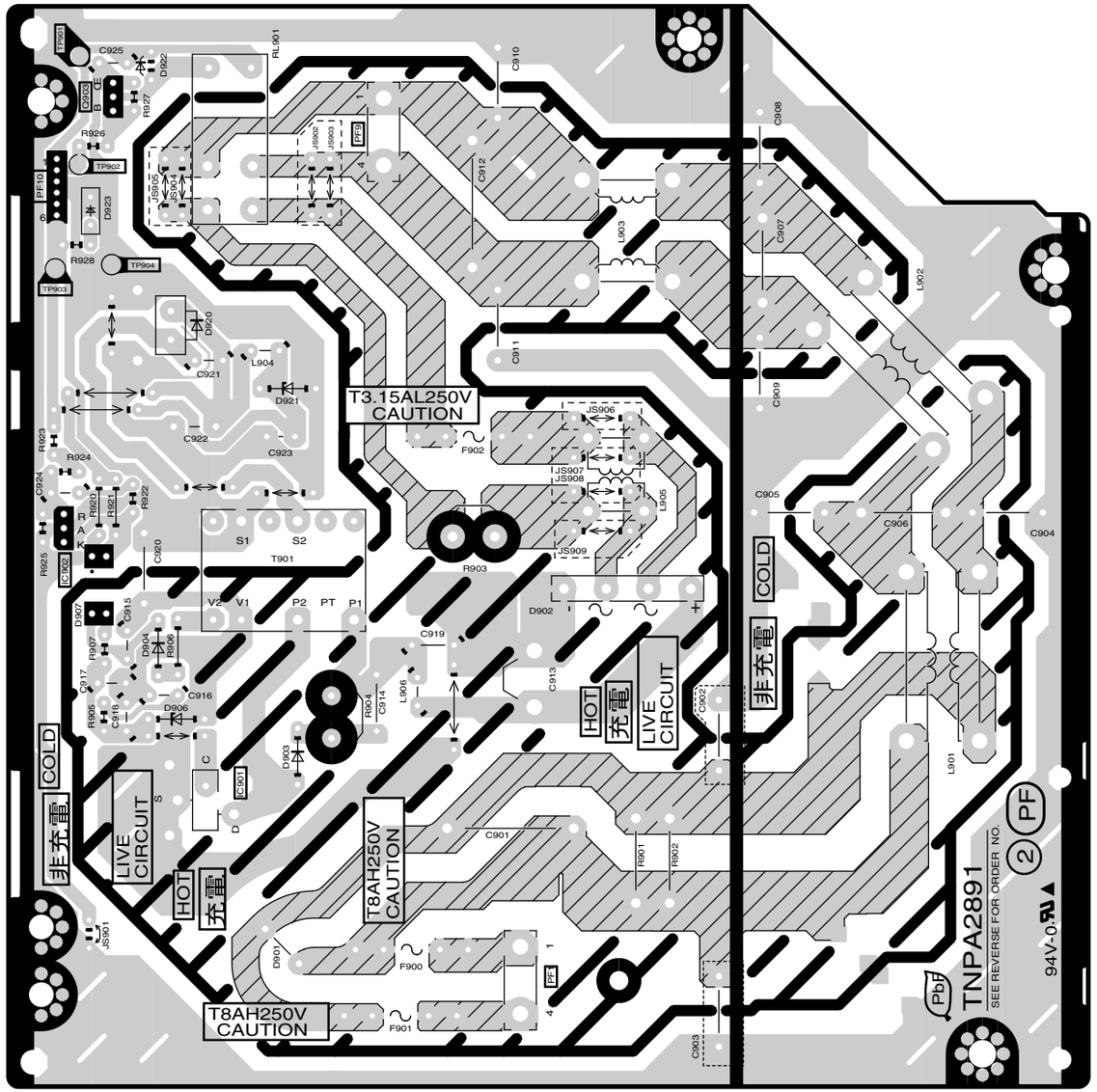


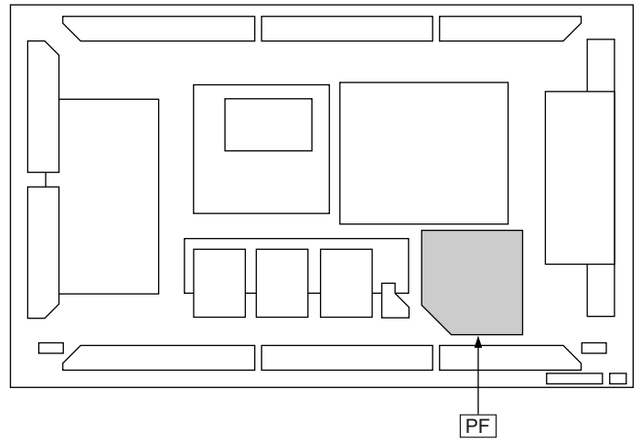
Parts Location

P-BOARD							
IC		**TRANSISTOR**		Q516	C-3	**TP**	
IC401	H-3	Q401	F-1	Q517	B-3	TP1	D-2
IC402	H-3	Q404	D-2	Q518	F-4	TP2	C-3
IC403	H-3	Q406	E-3	Q519	F-4	TP3	D-3
IC404	H-3	Q407	E-1	Q520	B-3	TP4	D-3
IC406	F-2	Q409	G-3	Q521	H-4	TP5	E-2
IC408	G-3	Q410	D-1	Q522	H-5	TP6	E-2
IC409	G-3	Q411	D-1	Q524	G-4	TP7	E-1
IC501	H-5	Q412	E-4	Q525	B-2	TP8	E-2
IC502	H-5	Q413	E-4	Q527	F-5	TP9	C-6
IC503	H-4	Q414	C-2	Q528	B-3	TP10	B-6
IC504	H-4	Q415	B-1	Q530	F-5	TP11	C-6
IC511	F-5	Q416	H-2	Q531	F-5	TP12	C-6
IC512	F-6	Q420	F-1	Q532	G-5	TP13	F-4
IC520	G-4	Q421	F-3	Q535	H-5		
IC521	B-3	Q501	H-4	Q537	G-5		
IC522	B-3	Q502	H-4	Q540	G-4		
IC523	G-4	Q503	H-5	Q541	G-4		
		Q504	B-2	Q542	F-5		
		Q506	B-3	Q544	G-5		
		Q508	G-5	Q545	F-4		
		Q509	G-5	Q546	G-6		
		Q510	G-5	Q547	H-4		
		Q511	B-4	Q549	G-4		
		Q512	B-3	Q550	H-6		
		Q513	B-3	Q551	H-5		
		Q514	B-2	Q552	H-5		
		Q515	B-2	Q553	G-6		
				Q554	G-6		

TH-50PHD6/TH-50PHW6
P-BOARD PARTS LOCATION

PF-BOARD
TXNPF10QMS



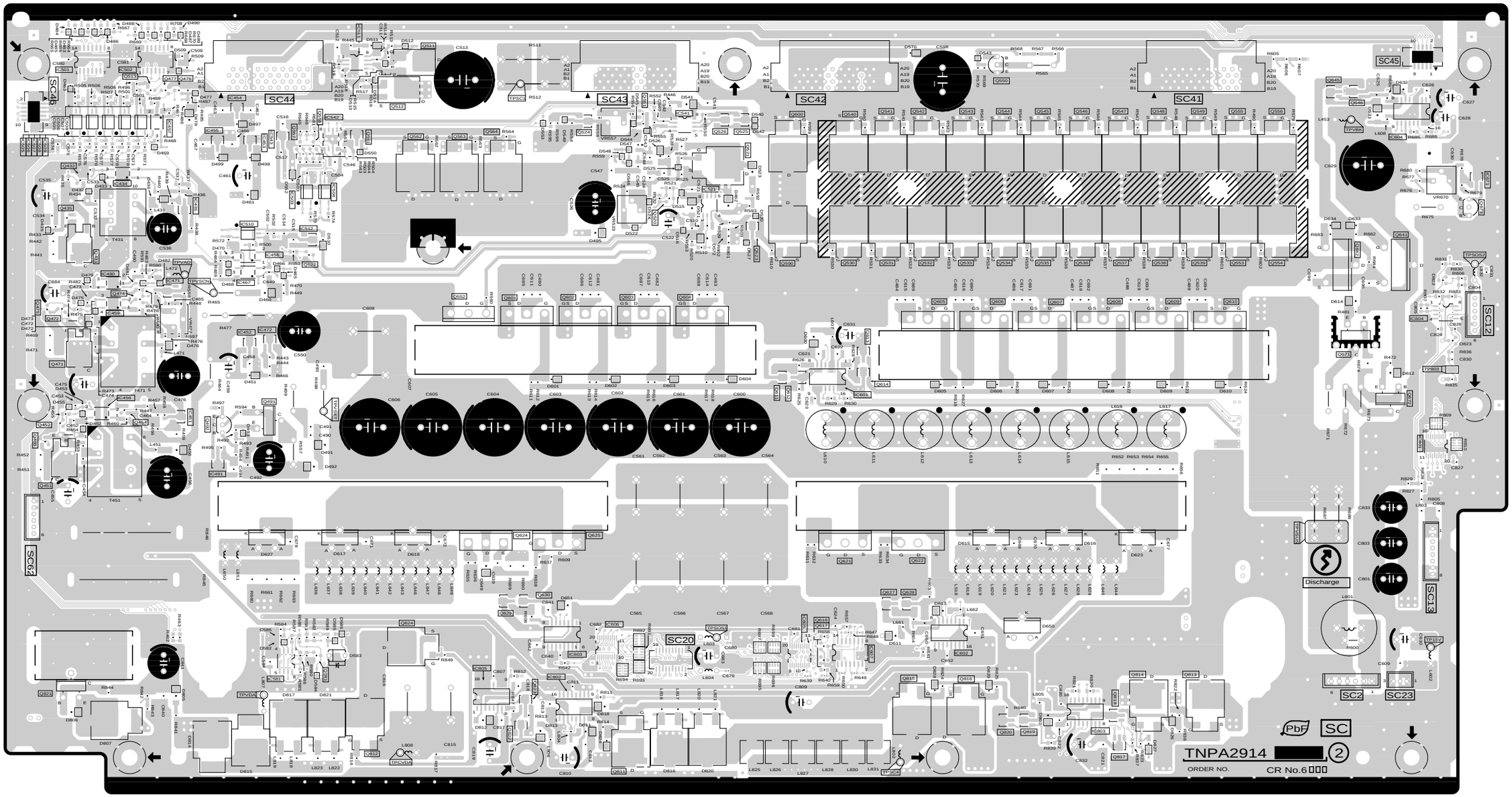


Parts Location

PF-BOARD			
IC		**TP**	
IC901	B-3	TP9001	A-5
IC902	A-3	TP902	A-5
TRANSISTOR		TP903	A-4
Q903	A-5	TP904	A-4

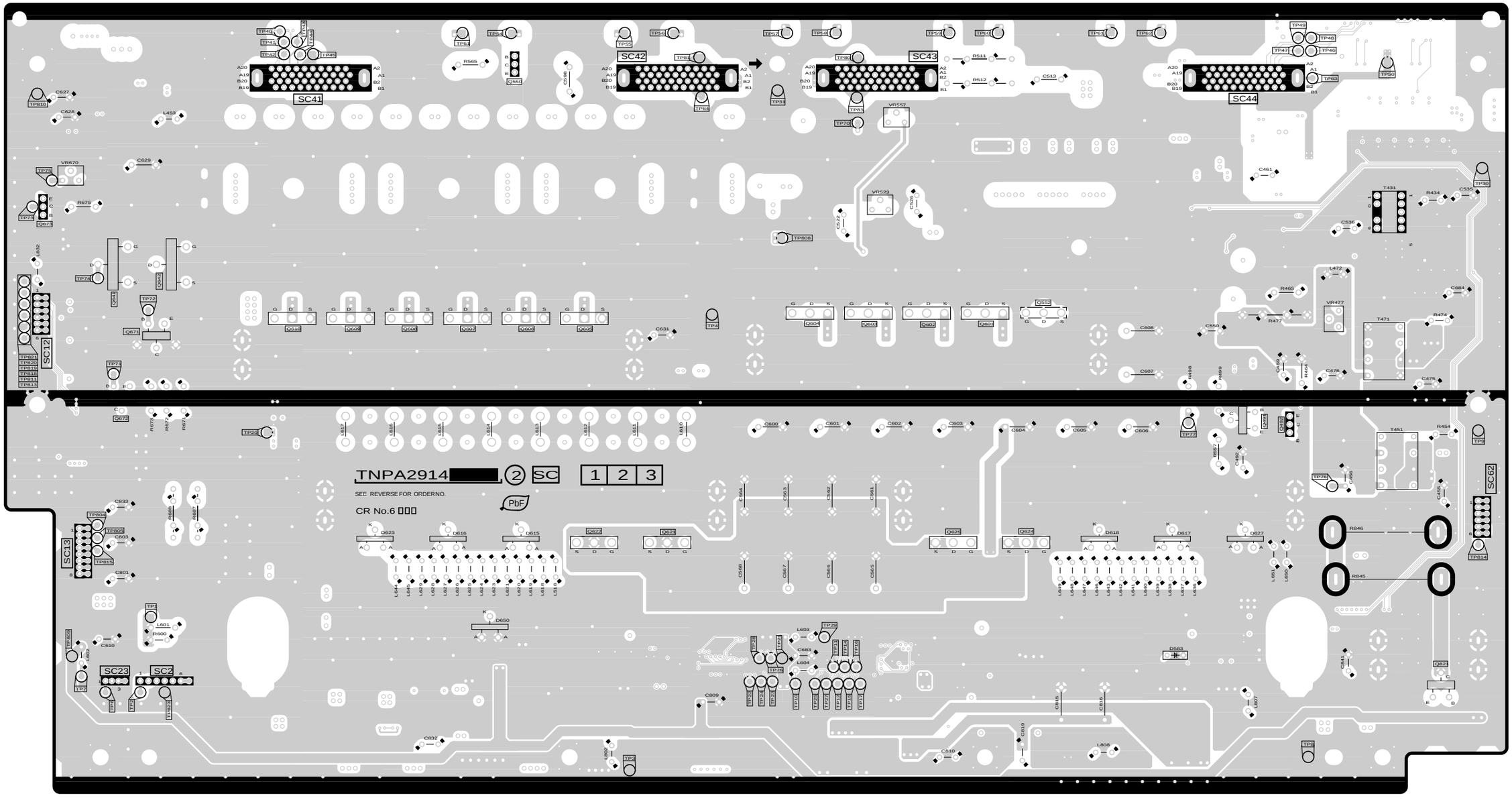
TH-50PHD6/TH-50PHW6
PF-BOARD TXNPF10QMS

SC-BOARD(COMPONENT SIDE)
TXNSC10QMS

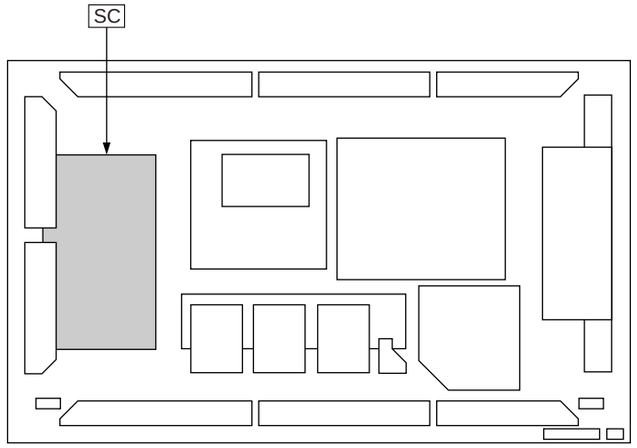


TH-50PHD6/TH-50PHW6
SC-BOARD TXNSC10QMS

SC-BOARD(FOIL SIDE)
TXNSC10QMS



TH-50PHD6/TH-50PHW6
SC-BOARD TXNSC10QMS



Parts Location

SC-BOARD (FOIL SIDE)

TRANSISTOR		TP	
Q6491	H-3	TP1	B-2
Q6492	H-3	TP2	D-2
Q6550	D-5	TP3	A-2
Q6552	F-4	TP4	E-4
Q6601	F-4	TP6	A-2
Q6602	F-4	TP7	A-2
Q6603	E-4	TP8	H-2
Q6604	E-4	TP9	I-3
Q6605	D-4	TP10	E-2
Q6606	D-4	TP11	E-2
Q6607	C-4	TP12	E-2
Q6608	C-4	TP14	E-2
Q6609	C-4	TP15	E-2
Q6610	B-4	TP16	E-2
Q6621	D-3	TP17	E-2
Q6622	D-3	TP20	B-3
Q6624	F-3	TP21	E-2
Q6625	F-3	TP22	E-2
Q6641	A-4	TP23	E-2
Q6642	B-4	TP24	E-2
Q6671	A-4	TP25	E-2
Q6672	A-3	TP26	E-2
Q6673	A-4	TP27	E-2
Q6821	I-2	TP28	E-2
		TP29	E-2
		TP30	I-5
		TP31	E-5
		TP40	B-5
		TP41	B-5
		TP42	B-5
		TP43	B-5
		TP44	B-5
		TP45	B-5
		TP46	H-5
		TP47	H-5
		TP48	H-5
		TP49	H-5
		TP50	H-5
		TP51	C-5
		TP54	C-5

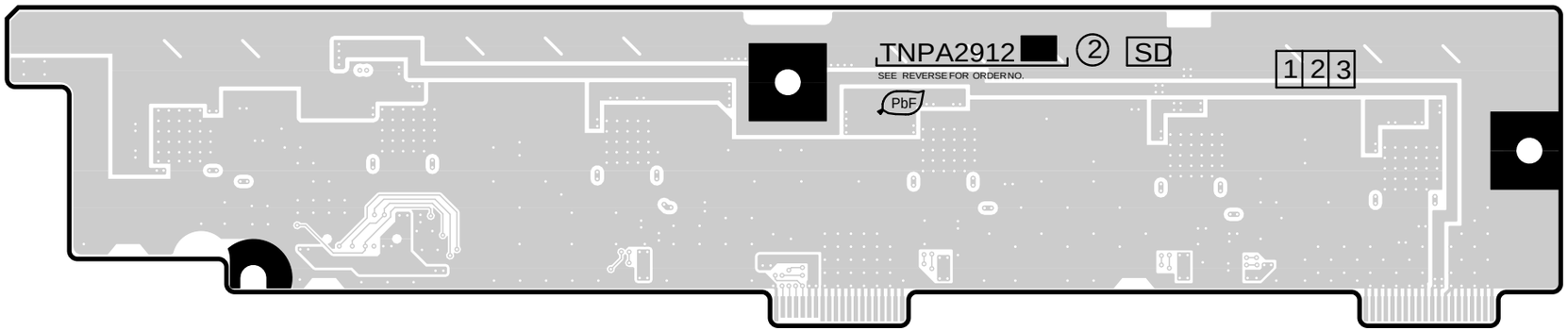
TP55	D-5		
TP56	D-5		
TP57	E-5		
TP58	E-5		
TP59	F-5		
TP60	F-5		
TP61	G-5		
TP62	G-5		
TP63	H-5		
TP70	E-5		
TP71	A-4		
TP72	B-4		
TP73	A-4		
TP74	A-4		
TP75	A-5		
TP76	H-3		
TP77	G-3		
TP80	E-5		
TP81	E-5		
TP83	E-5		
TP84	E-5		
TP6804	A-3		
TP6806	A-3		
TP6808	E-4		
TP6809	A-2		
TP6810	A-5		
TP6811	A-4		
TP6813	A-4		
TP6814	I-3		
TP6815	A-3		
TP6818	A-4		
TP6819	A-4		
TP6820	A-4		
TP6821	A-4		
TP6823	B-2		

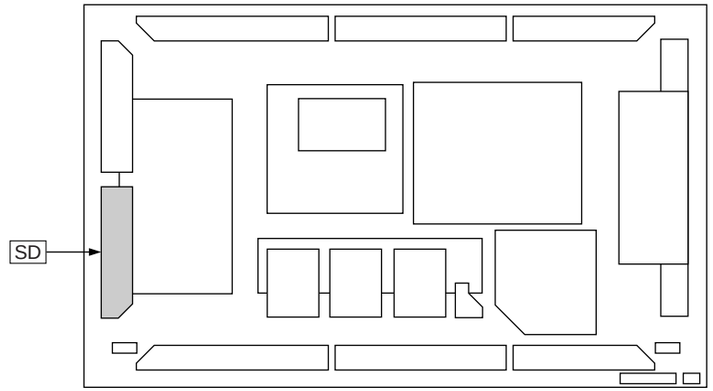
Parts Location

SC-BOARD (COMPONENT SIDE)

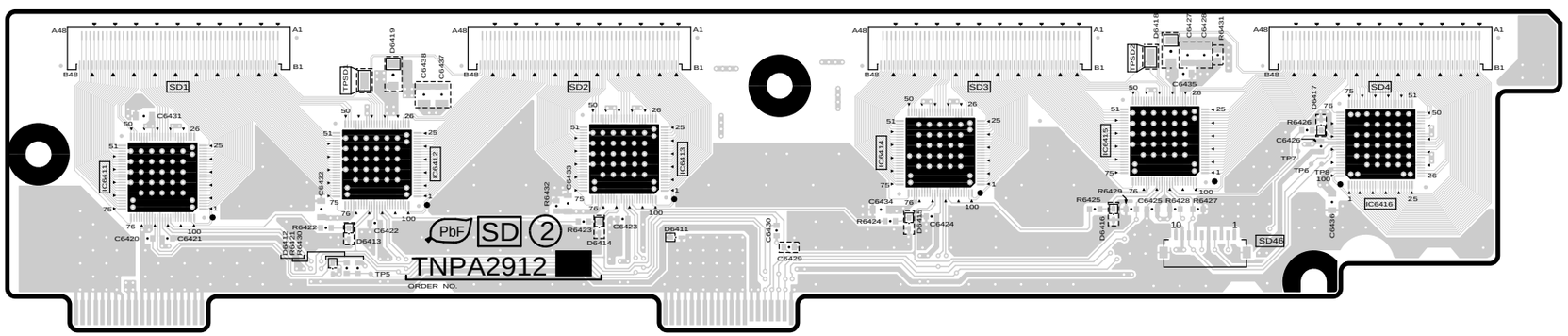
IC		IC6801	I-3	Q6541	F-5	Q6624	D-3
IC6431	B-5	IC6802	D-2	Q6542	F-5	Q6625	D-3
IC6434	A-5	IC6803	G-2	Q6543	F-5	Q6627	F-2
IC6451	B-3	IC6804	H-4	Q6544	F-5	Q6628	F-2
IC6452	B-4	IC6805	C-2	Q6545	F-5	Q6629	D-2
IC6453	B-5	**TRANSISTOR**		Q6546	G-5	Q6630	D-2
IC6454	B-5	Q6308	G-4	Q6547	G-5	Q6641	H-4
IC6455	B-5	Q6431	A-4	Q6548	G-5	Q6642	H-4
IC6456	A-4	Q6432	A-5	Q6549	G-5	Q6645	H-5
IC6457	B-5	Q6435	A-5	Q6550	F-5	Q6646	H-5
IC6458	A-4	Q6451	A-3	Q6551	D-5	Q6671	H-4
IC6459	B-4	Q6453	A-3	Q6552	C-4	Q6672	H-4
IC6467	B-4	Q6458	A-3	Q6553	G-4	Q6673	I-5
IC6471	B-4	Q6471	A-4	Q6554	H-4	Q6811	D-2
IC6472	B-4	Q6472	A-4	Q6555	G-5	Q6812	C-2
IC6480	A-4	Q6474	A-4	Q6556	C-5	Q6813	G-2
IC6491	B-3	Q6475	A-4	Q6558	H-5	Q6814	G-2
IC6501	A-5	Q6476	B-5	Q6561	C-5	Q6815	F-2
IC6502	B-5	Q6477	B-5	Q6562	C-5	Q6816	F-2
IC6503	B-5	Q6491	B-3	Q6563	C-5	Q6817	G-2
IC6504	C-5	Q6492	B-3	Q6564	C-5	Q6818	G-2
IC6505	A-5	Q6512	C-5	Q6567	B-5	Q6819	F-2
IC6506	A-5	Q6513	B-5	Q6581	C-2	Q6820	F-2
IC6507	A-5	Q6520	D-5	Q6590	E-4	Q6821	A-2
IC6508	A-5	Q6521	E-5	Q6600	E-5	Q6822	D-2
IC6509	A-5	Q6522	B-4	Q6601	D-4	Q6823	D-2
IC6510	B-4	Q6523	E-4	Q6602	D-4	Q6824	C-2
IC6511	C-5	Q6524	D-5	Q6603	D-4	**TP**	
IC6512	B-4	Q6525	E-5	Q6604	E-4	TP6803	I-4
IC6521	E-5	Q6526	E-5	Q6605	F-4	TP15V	I-2
IC6541	E-5	Q6530	E-4	Q6606	F-4	TPAVAD	B-4
IC6542	C-5	Q6531	F-4	Q6607	G-4	TPCVDA	C-2
IC6543	B-5	Q6532	F-4	Q6609	G-4	TPSC1	D-5
IC6581	B-2	Q6533	F-4	Q6610	G-4	TPSC4	F-2
IC6601	E-4	Q6534	F-4	Q6611	E-4	TPSOS1	E-2
IC6602	F-2	Q6535	F-4	Q6612	E-4	TPSOS2	I-4
IC6603	D-2	Q6536	G-4	Q6613	E-4	TPVBK	H-5
IC6604	H-5	Q6537	G-4	Q6614	E-4	TPVDA	B-2
IC6605	E-2	Q6538	G-4	Q6616	E-2	TPVSCN	B-4
IC6606	D-2	Q6539	G-4	Q6617	E-2	TPVSET	C-3
IC6607	E-2	Q6540	E-5	Q6621	E-3	TPVSUS	H-3
IC6671	I-5			Q6622	F-3		

SD-BOARD(FOIL SIDE)
TNPA2912



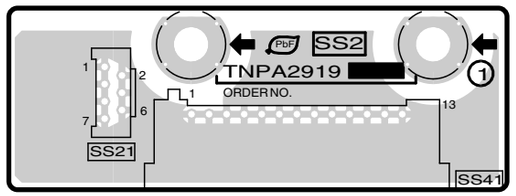


SD-BOARD(COMPONENT SIDE)
TNPA2912

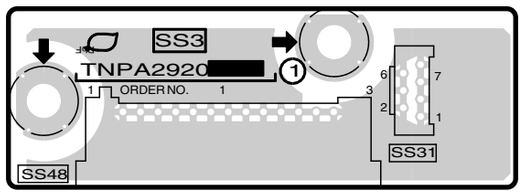


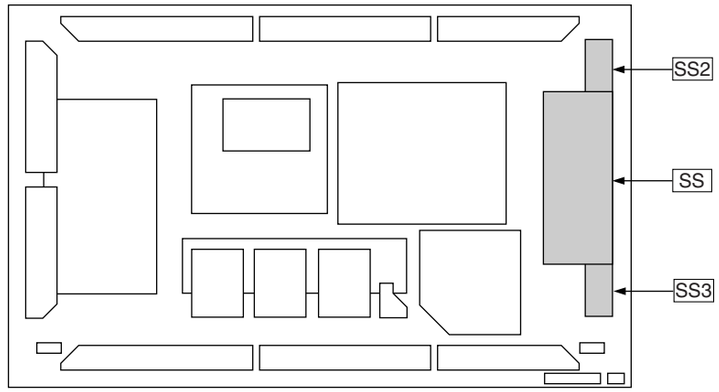
TH-50PHD6/TH-50PHW6
SD-BOARD TNPA2912

SS2-BOARD(COMPONENT SIDE)
TNPA2919



SS3-BOARD(COMPONENT SIDE)
TNPA2920





Parts Location

SS-BOARD (COMPONENT SIDE)

IC

IC6701	D-2
IC6702	E-3
IC6703	C-3
IC6704	A-2
IC6705	B-4
IC6706	G-2
IC6707	C-3
IC6709	A-2
IC6901	G-3
IC6902	D-4
IC6903	E-4
IC6904	A-4
IC6905	C-4

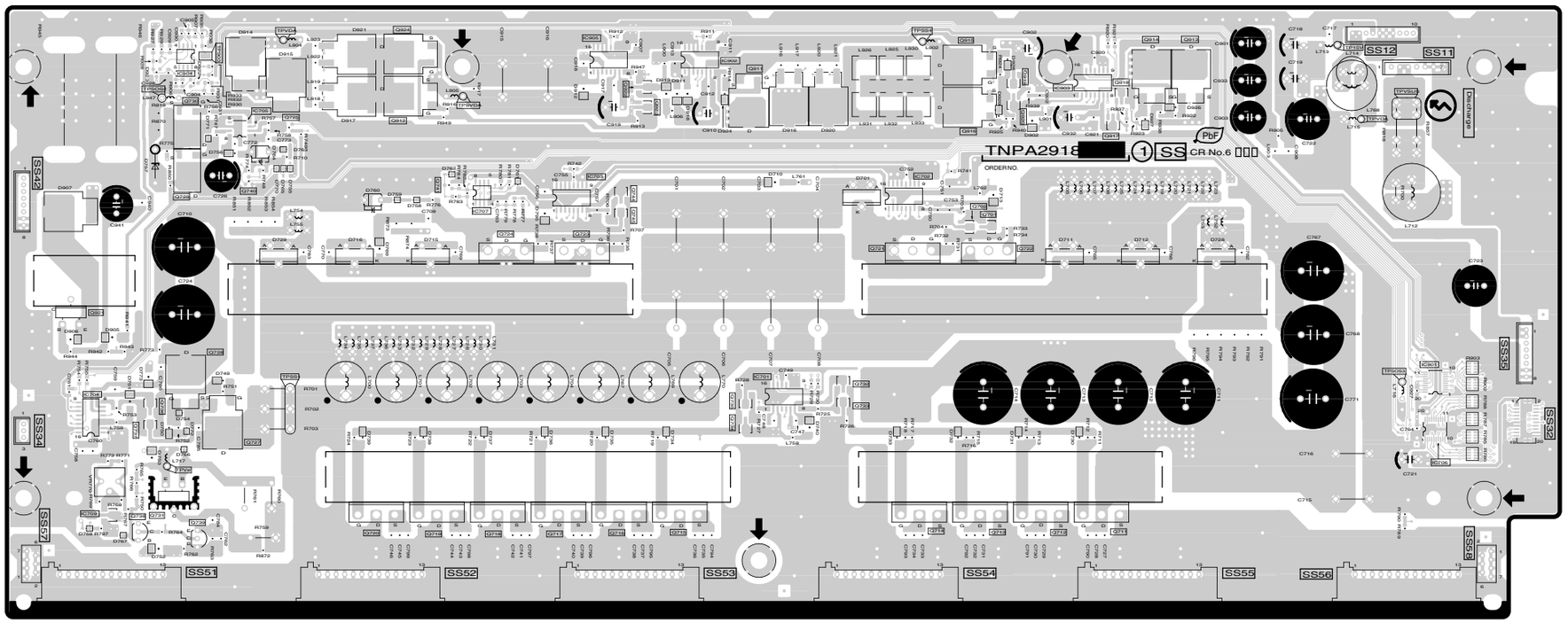
TRANSISTOR

Q6701	E-3
Q6702	E-3
Q6711	E-2
Q6712	E-2
Q6713	E-2
Q6714	E-2
Q6715	D-2
Q6716	C-2
Q6717	C-2
Q6718	C-2
Q6719	C-2
Q6720	B-2
Q6721	D-3
Q6722	E-3
Q6723	C-3
Q6724	C-3
Q6725	B-4
Q6727	B-2
Q6728	B-3
Q6729	A-3
Q6730	A-4
Q6731	A-2
Q6732	D-3
Q6733	D-2
Q6734	D-2
Q6735	D-2
Q6736	A-2
Q6737	A-2
Q6738	A-2
Q6739	B-2
Q6740	B-3
Q6741	C-3
Q6744	C-3
Q6745	C-3
Q6911	D-4
Q6912	B-4
Q6913	F-4
Q6914	E-4
Q6915	E-4
Q6916	E-4
Q6917	E-4
Q6918	E-4
Q6919	E-4
Q6920	E-4
Q6921	A-3
Q6922	C-4
Q6923	C-4
Q6924	B-4

TP

TP6903	B-4
TP15V	F-4
TPSOS2	A-4
TPSOS3	F-3
TPSS1	B-2
TPSS4	E-4
TPSVDA	C-4
TPVDA	B-4
TPVDA	F-4
TPVe	A-2
TPVSUS	G-4

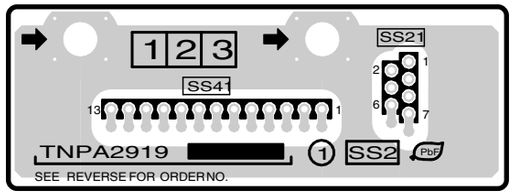
SS-BOARD(COMPONENT SIDE)
TXNSS10QMS



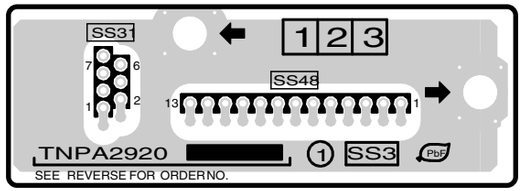
TH-50PHD6/TH-50PHW6
SS-BOARD TXNSS10QMS
SS2-BOARD TNPA2919
SS3-BOARD TNPA2920

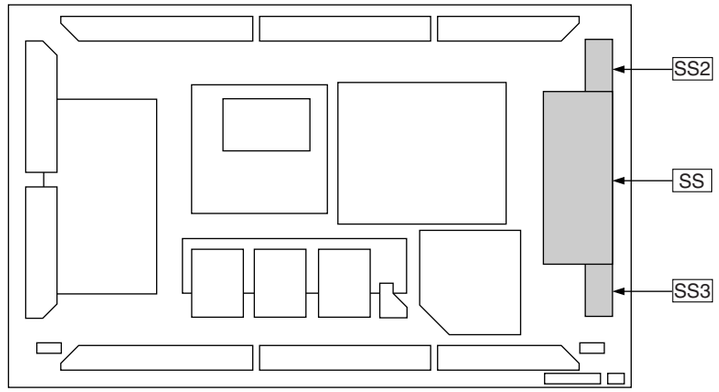
TH-50PHD6/TH-50PHW6
SS-BOARD TXNSS10QMS
SS2-BOARD TNPA2919
SS3-BOARD TNPA2920

SS2-BOARD(FOIL SIDE)
TNPA2919



SS3-BOARD(FOIL SIDE)
TNPA2920

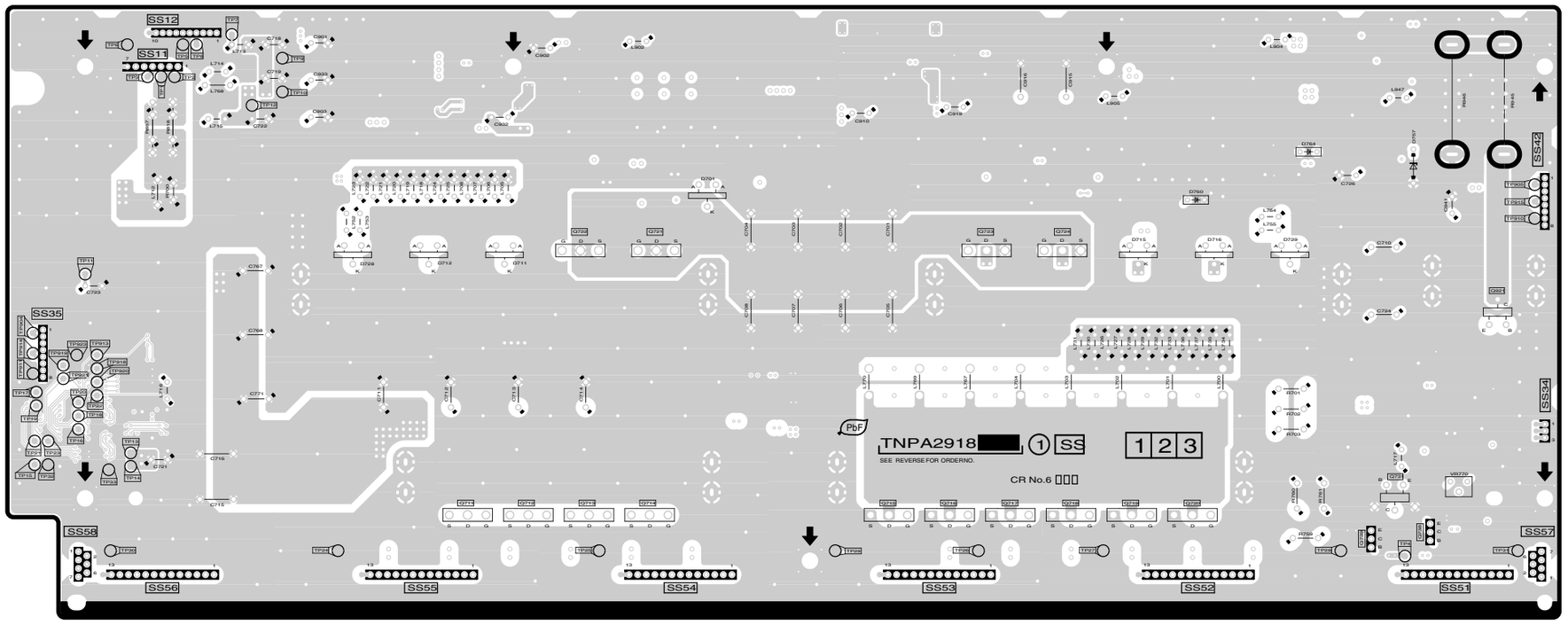




Parts Location

SS-BOARD (FOIL SIDE)					
TRANSISTOR		**TP**		TP23	A-2
Q6711	C-2	TP1	A-4	TP24	B-2
Q6712	C-2	TP2	A-4	TP25	C-2
Q6713	C-2	TP3	A-4	TP26	E-2
Q6714	C-2	TP4	F-2	TP27	E-2
Q6715	D-2	TP5	B-4	TP28	F-2
Q6716	E-2	TP6	A-4	TP29	D-2
Q6717	E-2	TP7	B-4	TP30	A-2
Q6718	E-2	TP8	B-4	TP31	G-2
Q6719	E-2	TP9	B-4	TP32	A-2
Q6720	F-2	TP10	B-4	TP33	A-2
Q6721	C-3	TP11	A-3	TP6904	A-3
Q6722	C-3	TP12	B-4	TP6905	G-3
Q6723	E-3	TP13	A-2	TP6910	G-3
Q6724	E-3	TP14	A-2	TP6911	A-2
Q6731	F-2	TP15	A-2	TP6913	A-3
Q6738	G-2	TP16	A-2	TP6914	A-3
Q6739	F-2	TP17	A-2	TP6915	G-3
Q6921	G-3	TP18	A-2	TP6918	A-2
		TP19	A-2	TP6919	A-2
		TP20	A-2	TP6920	A-2
		TP21	A-2	TP6921	A-2
		TP22	A-2	TP6923	A-3

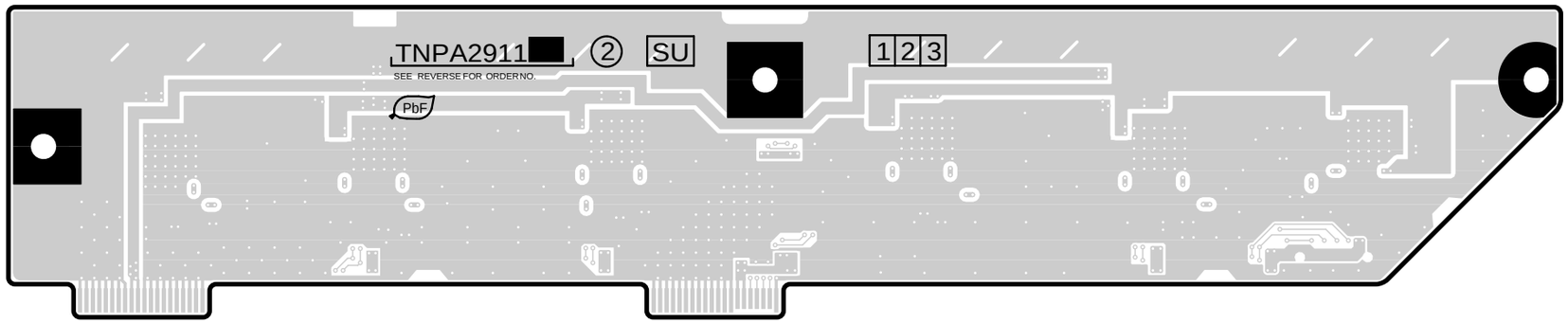
SS-BOARD(FOIL SIDE)
TXNSS10QMS

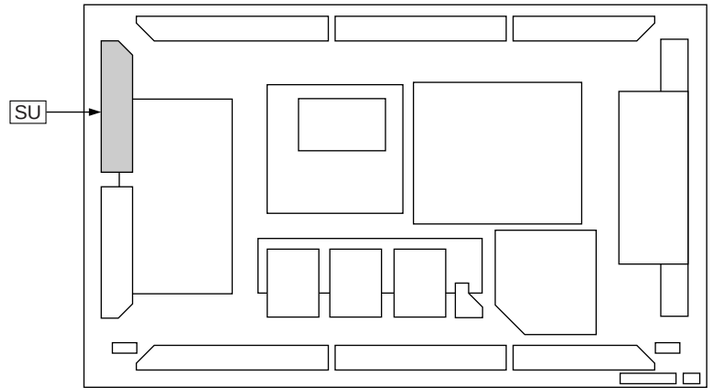


TH-50PHD6/TH-50PHW6
SS-BOARD TXNSS10QMS
SS2-BOARD TNPA2919
SS3-BOARD TNPA2920

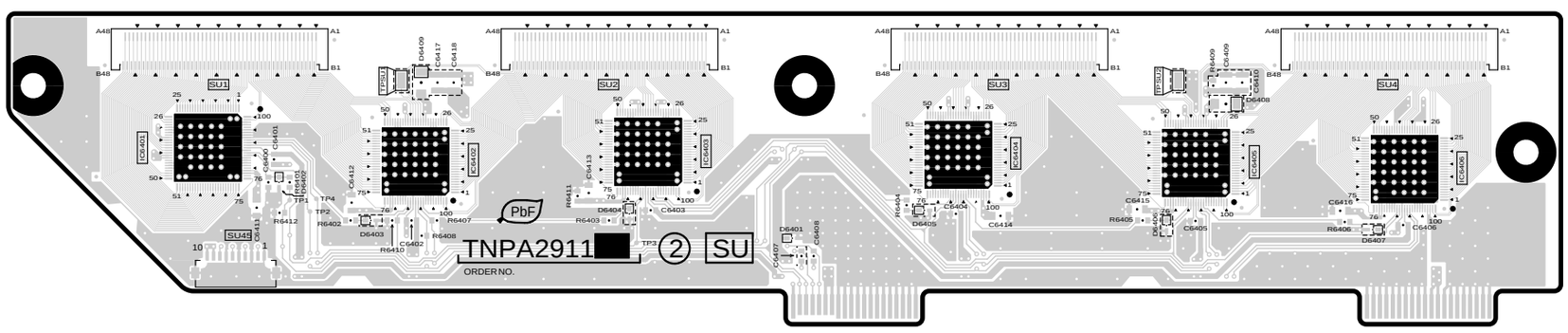
TH-50PHD6/TH-50PHW6
SS-BOARD TXNSS10QMS
SS2-BOARD TNPA2919
SS3-BOARD TNPA2920

SU-BOARD(FOIL SIDE)
TNPA2911



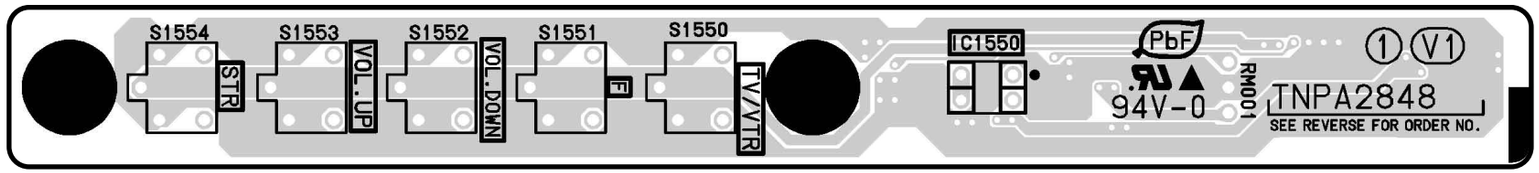


SU-BOARD(COMPONENT SIDE)
TNPA2911

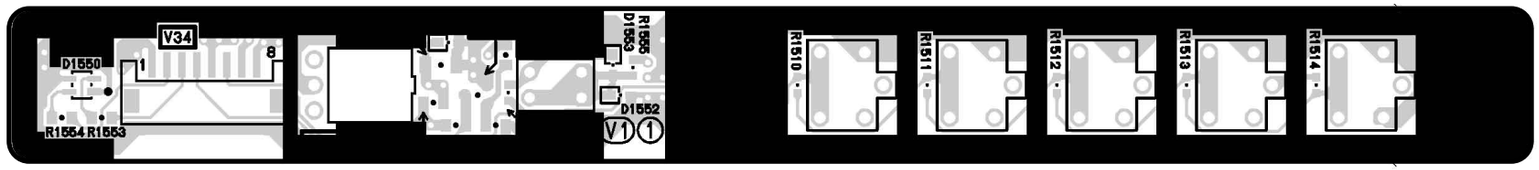


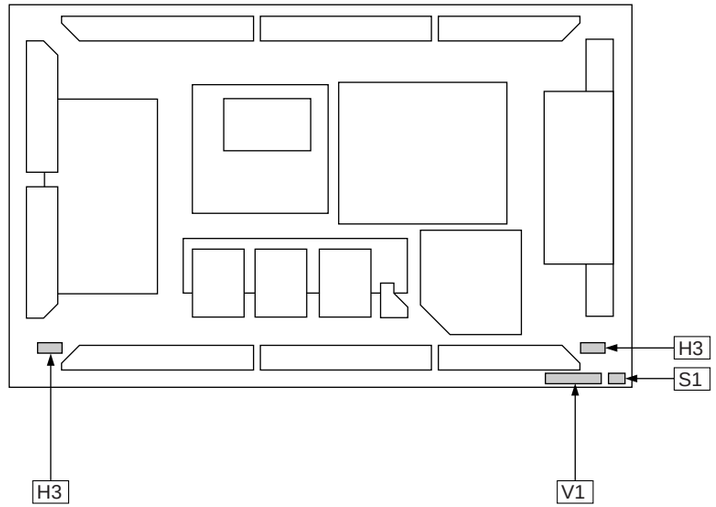
TH-50PHD6/TH-50PHW6
SU-BOARD TNPA2911

V1-BOARD(FOIL SIDE)
TXNV110QJS

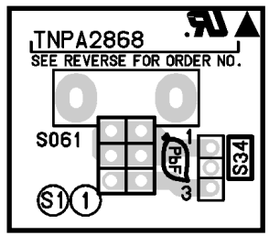


V1-BOARD(COMPONENT SIDE)
TXNV110QJS

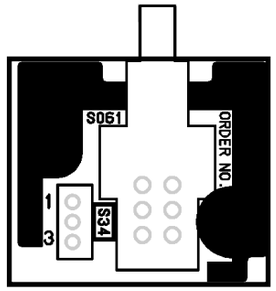




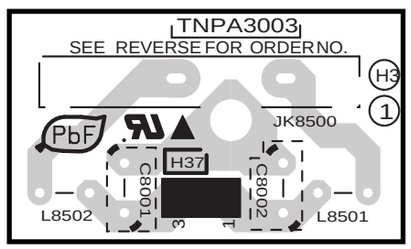
S1-BOARD(FOIL SIDE)
TNPA2868AB



S1-BOARD(COMPONENT SIDE)
TNPA2868AB

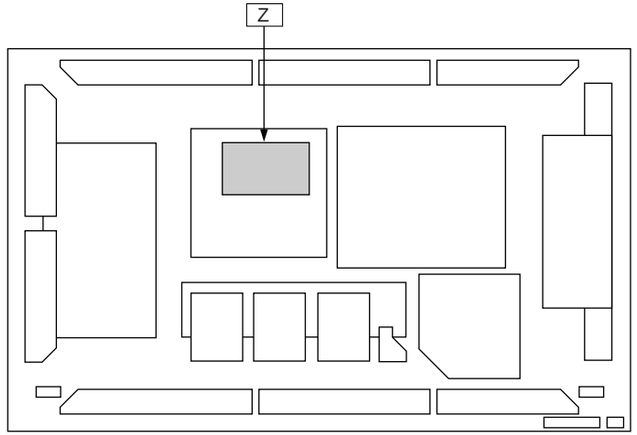


H3-BOARD
TNPA3003



TH-50PHD6/TH-50PHW6
V1-BOARD TXNV110QJS
S1-BOARD TNPA2868AB
H3-BOARD TNPA3003

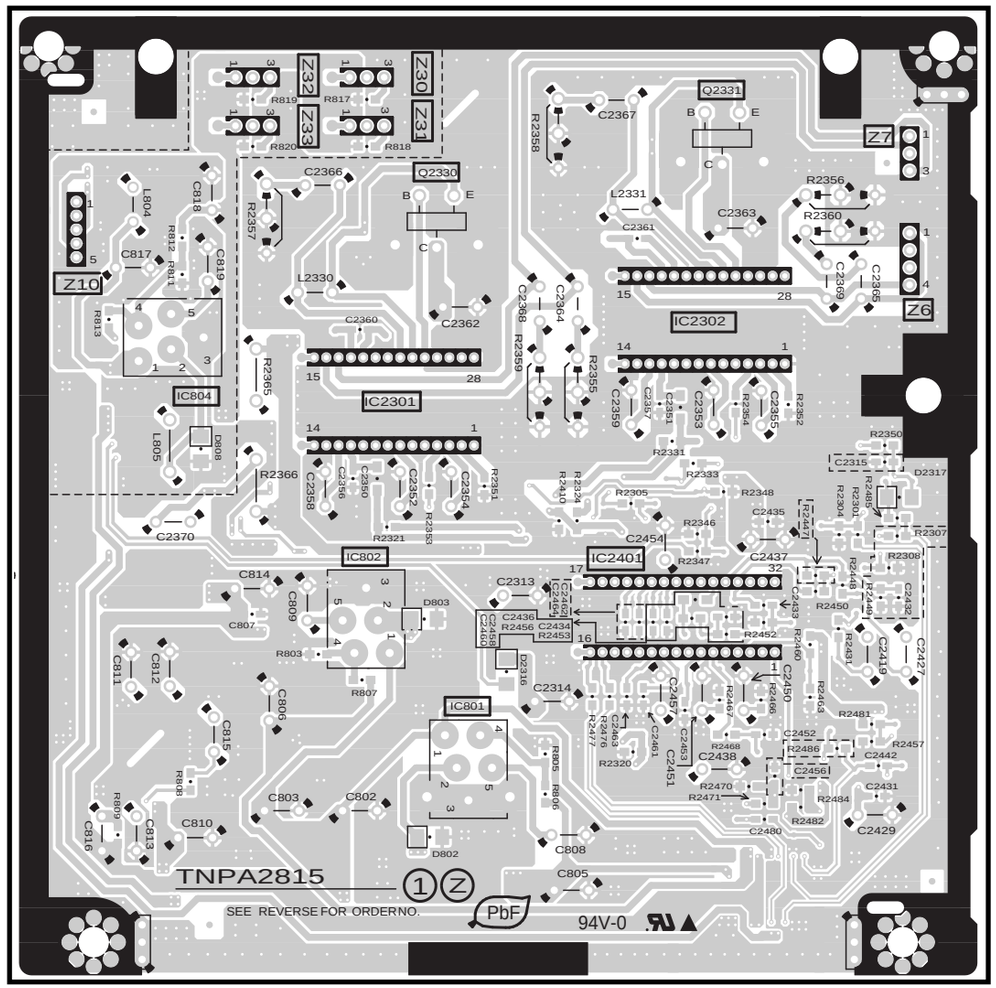
TH-50PHD6/TH-50PHW6
V1-BOARD TXNV110QJS
S1-BOARD TNPA2868AB
H3-BOARD TNPA3003



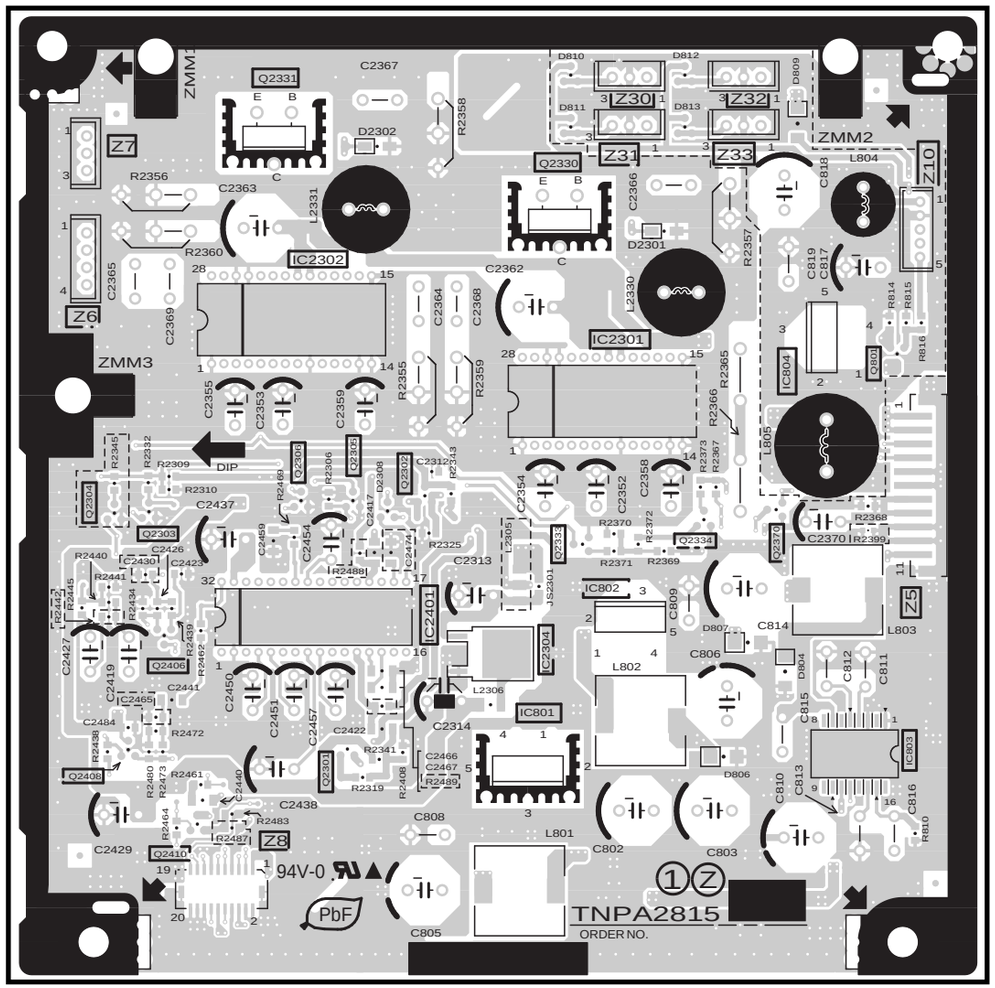
Parts Location

Z-BOARD			
IC		**TRANSISTOR**	
IC2301	B-3	Q2301	F-2
IC2301	G-3	Q2302	F-3
IC2302	C-3	Q2303	F-3
IC2302	F-4	Q2304	E-3
IC2304	G-2	Q2305	F-3
IC2401	C-2	Q2306	F-3
IC2401	F-2	Q2330	B-4
IC801	B-2	Q2330	G-4
IC801	G-2	Q2331	C-4
IC802	B-2	Q2331	F-4
IC802	G-2	Q2333	G-3
IC803	H-2	Q2334	G-3
IC804	A-3	Q2370	H-3
IC804	H-3	Q2406	F-2
		Q2408	E-2
		Q2410	F-2
		Q801	H-3

Z-BOARD(FOIL SIDE)
TXN/Z10QBS

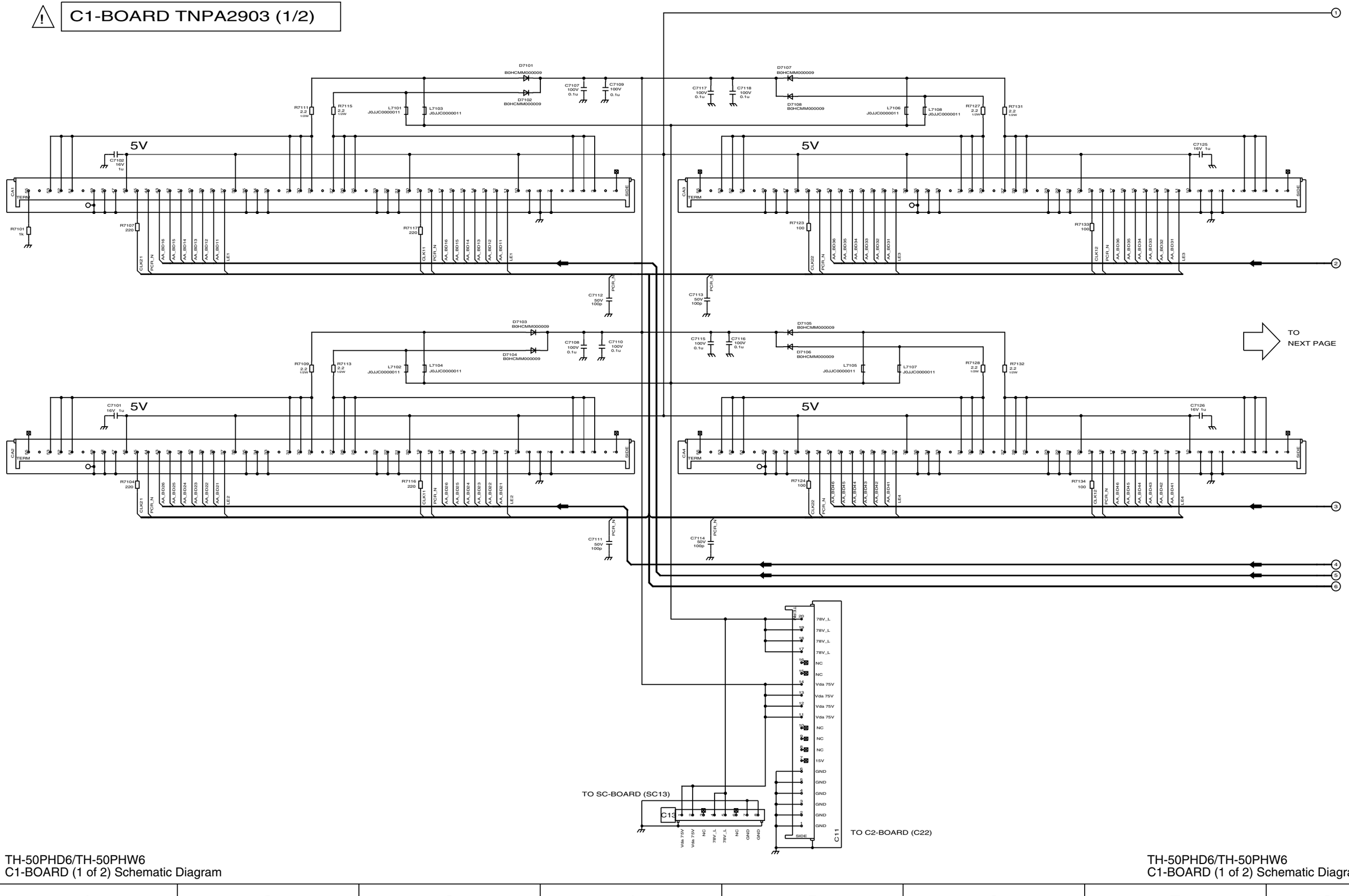


Z-BOARD(COMPONENT SIDE)
TXN/Z10QBS



TH-50PHD6/TH-50PHW6
Z-BOARD TXN/Z10QBS

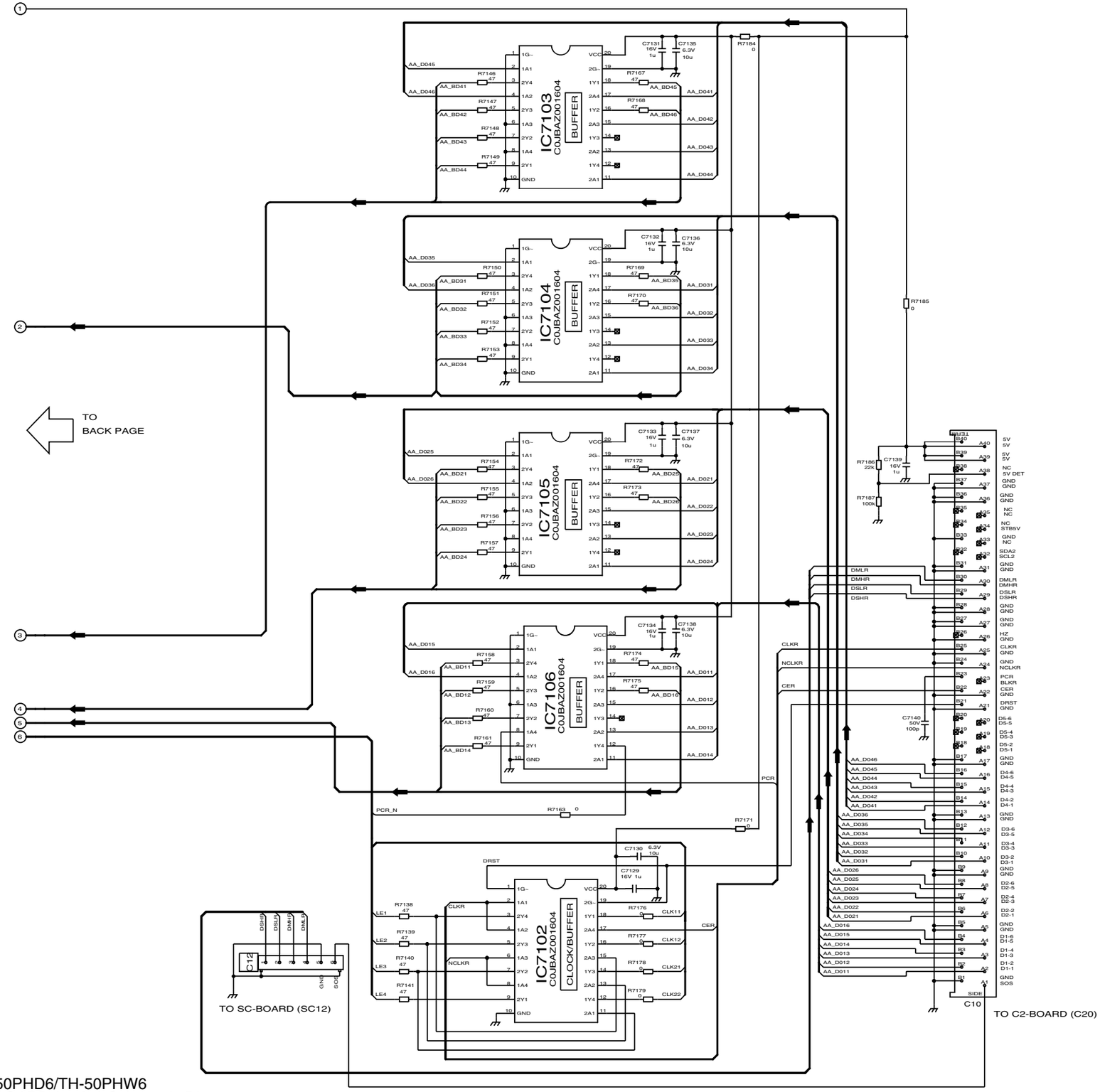
C1-BOARD TNPA2903 (1/2)



TH-50PHD6/TH-50PHW6
C1-BOARD (1 of 2) Schematic Diagram

TH-50PHD6/TH-50PHW6
C1-BOARD (1 of 2) Schematic Diagram

C1-BOARD TNPA2903 (2/2)

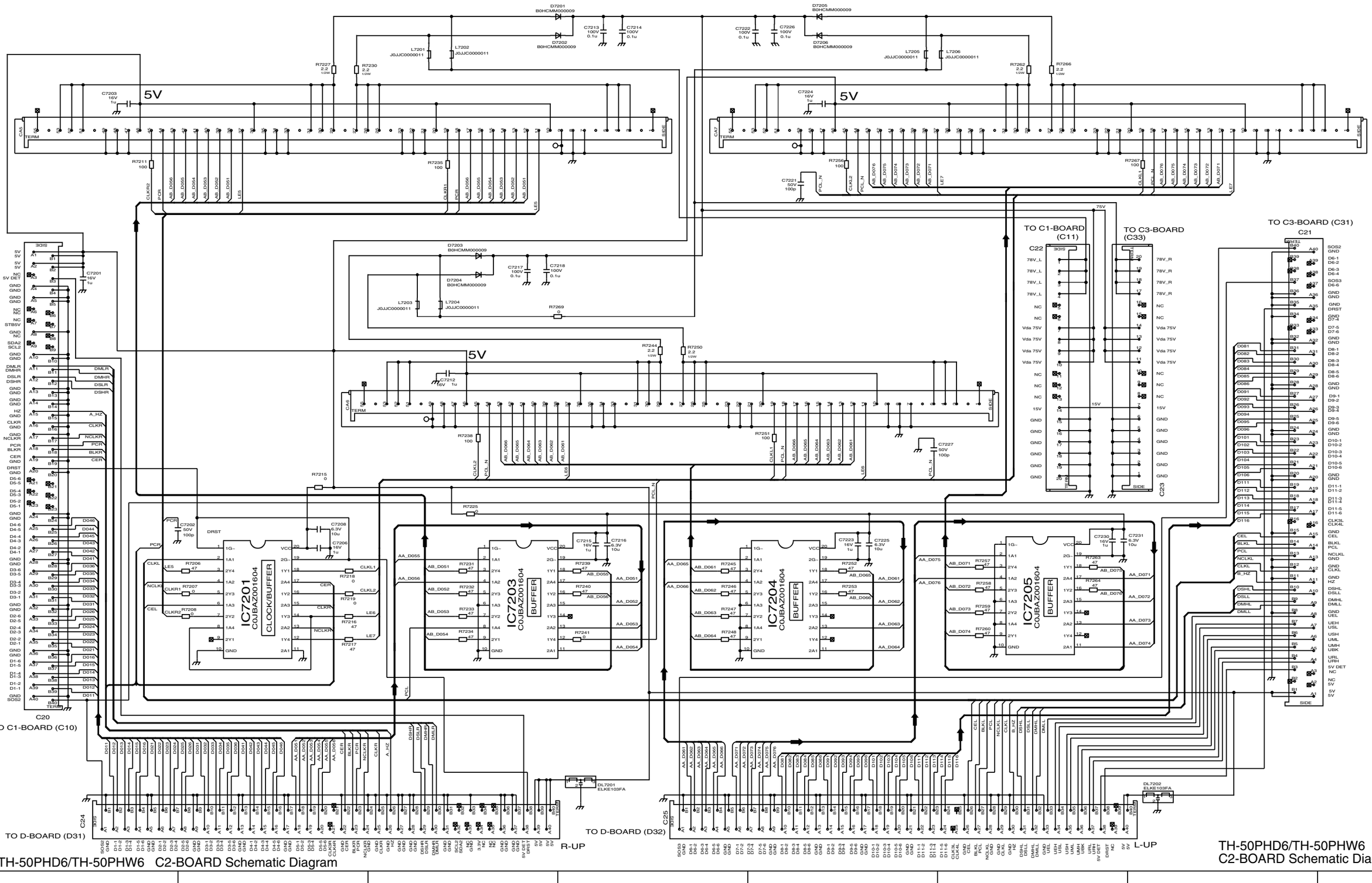


TH-50PHD6/TH-50PHW6
C1-BOARD (2 of 2) Schematic Diagram

TH-50PHD6/TH-50PHW6
C1-BOARD (2 of 2) Schematic Diagram

8 9 10 11 12 13 14 15

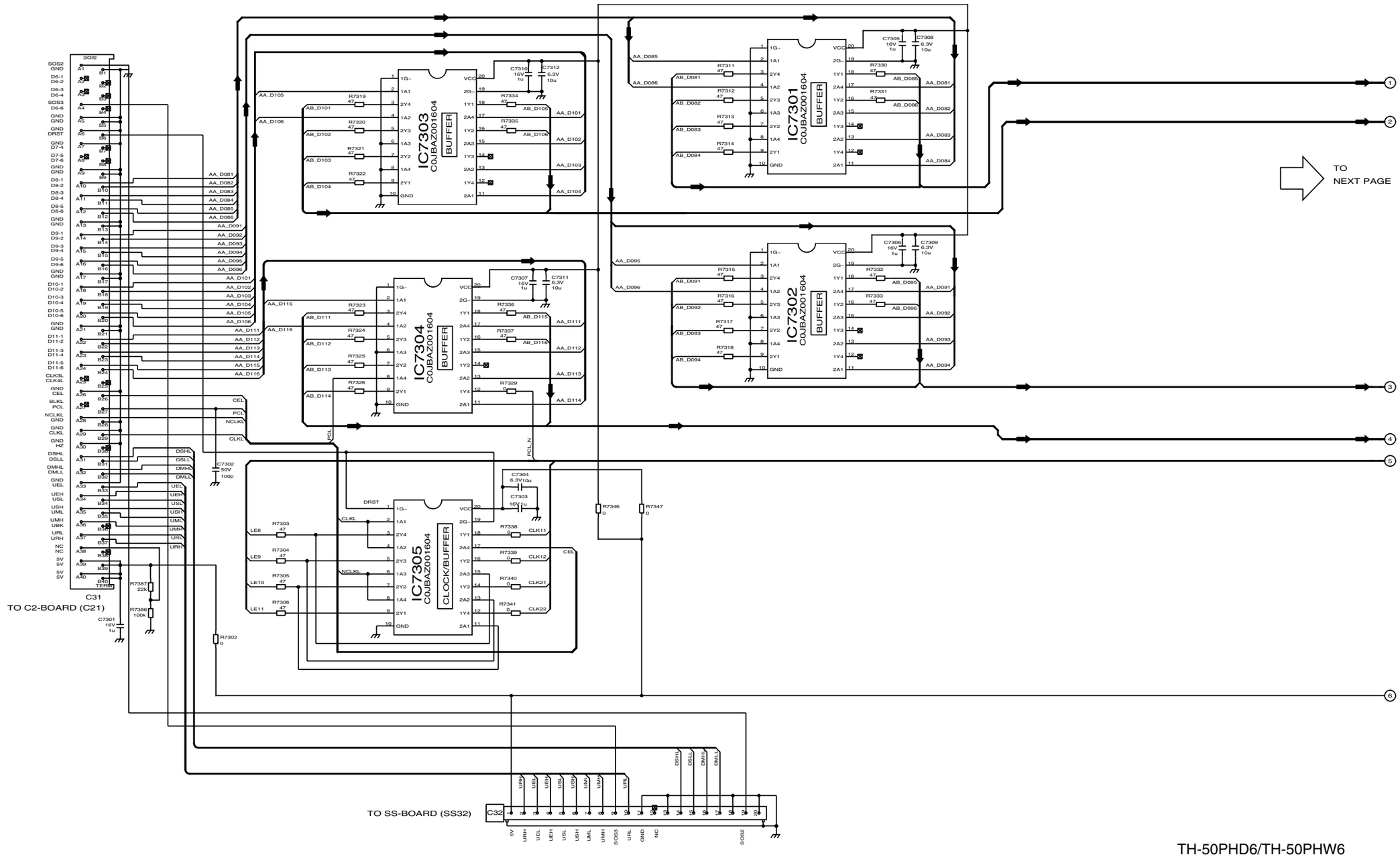
⚠ C2-BOARD TNPA2904



TH-50PHD6/TH-50PHW6 C2-BOARD Schematic Diagram

TH-50PHD6/TH-50PHW6
C2-BOARD Schematic Diagram

⚠ C3-BOARD TNPA2905 (1/2)



TH-50PHD6/TH-50PHW6
C3-BOARD (1 of 2) Schematic Diagram

TH-50PHD6/TH-50PHW6
C3-BOARD (1 of 2) Schematic Diagram

C3-BOARD TNPA2905 (2/2)

TO BACK PAGE

TO C2-BOARD (C23)

TO SS-BOARD (SS35)

TH-50PHD6/TH-50PHW6
C3-BOARD (2 of 2) Schematic Diagram

C4-BOARD TNPA2906 (1/2)

V1-BOARD TXNV110QJS

TO C5-BOARD (C51)

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TH-50PHD6/TH-50PHW6
C4-BOARD (1 of 2) and V1-BOARD Schematic Diagram

⚠ C4-BOARD TNPA2906 (2/2)

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BACK PAGE

TO C5-BOARD (C53)

C43

78V_R
78V_R
78V_R
78V_R
NC
NC
Vda 75V
Vda 75V
Vda 75V
Vda 75V
NC
NC
NC
15V
GND
GND
GND
GND
GND
GND

TO SS-BOARD (SS42)

C42

Vda 75V
Vda 75V
NC
78V_R
78V_R
NC
GND
GND

D7407 B0HCMM000009
D7408 B0HCMM000009
C7425 100V 0.1u
C7427 100V 0.1u
L7402 J0JJC0000011
L7404 J0JJC0000011
R7464 2.2
R7468 2.2
C7418 16Vu
5V
CN9 TERM
R7460 100
R7470 100
AB_D206 AB_D205 AB_D204 AB_D203 AB_D202 AB_D201
CLK21 PCL_N LE9
CLK11 PCL_N LE9
C7428 50V 100p PCL_N

D7411 B0HCMM000009
D7412 B0HCMM000009
C7433 100V 0.1u
C7435 100V 0.1u
L7406 J0JJC0000011
L7408 J0JJC0000011
R7481 2.2
R7485 2.2
C7440 1u/6V
5V
CB11 TERM
R7472 1k
C7431 50V 100p
R7477 220
R7487 220
AB_D226 AB_D225 AB_D224 AB_D223 AB_D222 AB_D221
PCL_N CLK22 PCL_N LE11
CLK12 PCL_N LE11

D7405 B0HCMM000009
D7406 B0HCMM000009
C7424 100V 0.1u
C7426 100V 0.1u
L7401 J0JJC0000011
L7403 J0JJC0000011
R7465 2.2
R7469 2.2
C7419 16Vu
5V
CN8 TERM
R7461 100
R7471 100
AB_D196 AB_D195 AB_D194 AB_D193 AB_D192 AB_D191
CLK21 PCL_N LE8
CLK11 PCL_N LE8
C7429 50V 100p PCL_N

D7409 B0HCMM000009
D7410 B0HCMM000009
C7432 100V 0.1u
C7434 100V 0.1u
L7405 J0JJC0000011
L7407 J0JJC0000011
R7482 2.2
R7486 2.2
C7441 1u/6V
5V
CB10 TERM
R7478 220
R7488 220
AB_D216 AB_D215 AB_D214 AB_D213 AB_D212 AB_D211
C7430 50V 100p PCL_N
PCL_N CLK22 PCL_N LE10
CLK12 PCL_N LE10

TH-50PHD6/TH-50PHW6
C4-BOARD (2 of 2) Schematic Diagram

TH-50PHD6/TH-50PHW6
C4-BOARD (2 of 2) Schematic Diagram

8 9 10 11 12 13 14 15

⚠ C5-BOARD TNPA2907

TO C6-BOARD (C60)

TO D-BOARD (D34)

TO D-BOARD (D33)

TO C6-BOARD (C61)

TO SC-BOARD (SC12)

TO C4-BOARD (C41)

IC7502 COJBAZ001604 CLOCK/BUFFER

IC7503 COJBAZ001604 BUFFER

IC7504 COJBAZ001604 BUFFER

IC7505 COJBAZ001604 BUFFER

TH-50PHD6/TH-50PHW6
C5-BOARD Schematic Diagram

TH-50PHD6/TH-50PHW6
C5-BOARD Schematic Diagram

⚠ C6-BOARD TNPA2908 (1/2)

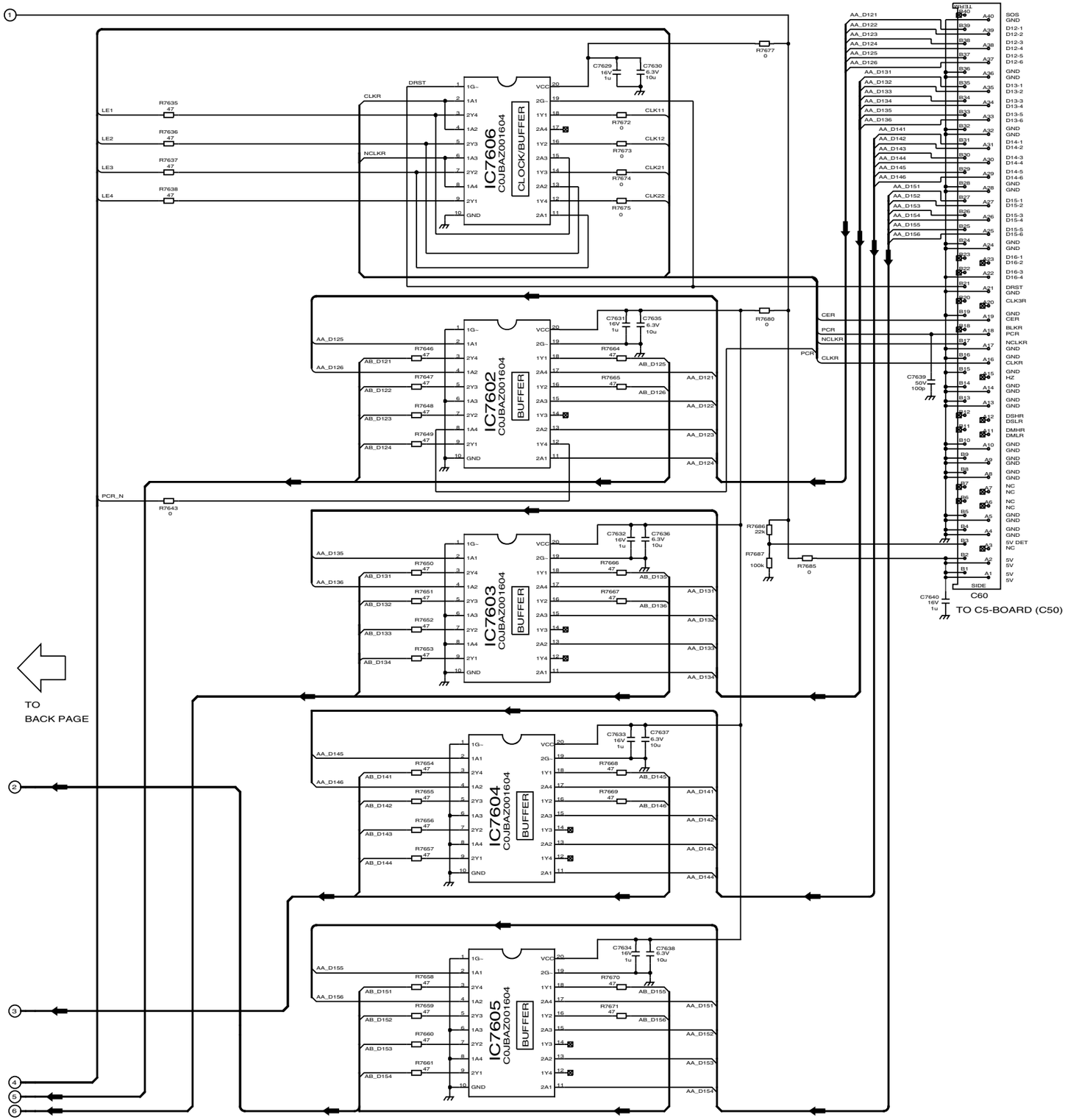
TO SC-BOARD (SC62)

TO C5-BOARD (C52)

TO NEXT PAGE

TH-50PHD6/TH-50PHW6
C6-BOARD (1 of 2) Schematic Diagram

C6-BOARD TNPA2908 (2/2)



TH-50PHD6/TH-50PHW6
C6-BOARD (2 of 2) Schematic Diagram

TH-50PHD6/TH-50PHW6
C6-BOARD (2 of 2) Schematic Diagram

D-BOARD TXN/D10QMS (1/15)

TO J-BOARD (J6)

TO J-BOARD (J3)

TO NEXT PAGE

AVR 3.3V

IC9001
C0CBCBD00008

IC9003
C0JBAB000550
INVERTER

IC9004
C0JBAS000109
SW

IC9002
C0ZBZ0000551
LVDS/TTL (PARALLEL)

IC9005
C0JBAZ001992
BUS SW

IC9008
C0JBAZ001992
BUS SW

ANALOG(S) & DIGITAL2

TO 6/15

TH-50PHD6/TH-50PHW6 D-BOARD (1 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (2/15)

TO BACK PAGE

TO NEXT PAGE

TO J-BOARD (J5)

D5

ANALOG(M) & DIGITAL1

IC9006 C0CBCBD00008 AVR 3.3V

IC9007 C0CBCBD00008 AVR 3.3V

IC9009 C0FBAD000069 A/D CONVERTER

IC9010 C0CBCBD00008 AVR 3.3V

IC9012 C0JBAB000550 INVERTER

IC9013 C0JBAS000109 SW

IC9016 C0CBCBD00008 AVR 3.3V

IC9017 C0CBCBD00008 AVR 3.3V

IC9019 C0FBAD000069 A/D CONVERTER

IC9023 C0JBAZ000545 5V -> 3.3V

IC9011 C0ZBZ0000551 LVDS/TTL (PARALLEL)

IC9015 C0JBAZ001992 BUS SW

IC9018 C0JBAZ001992 BUS SW

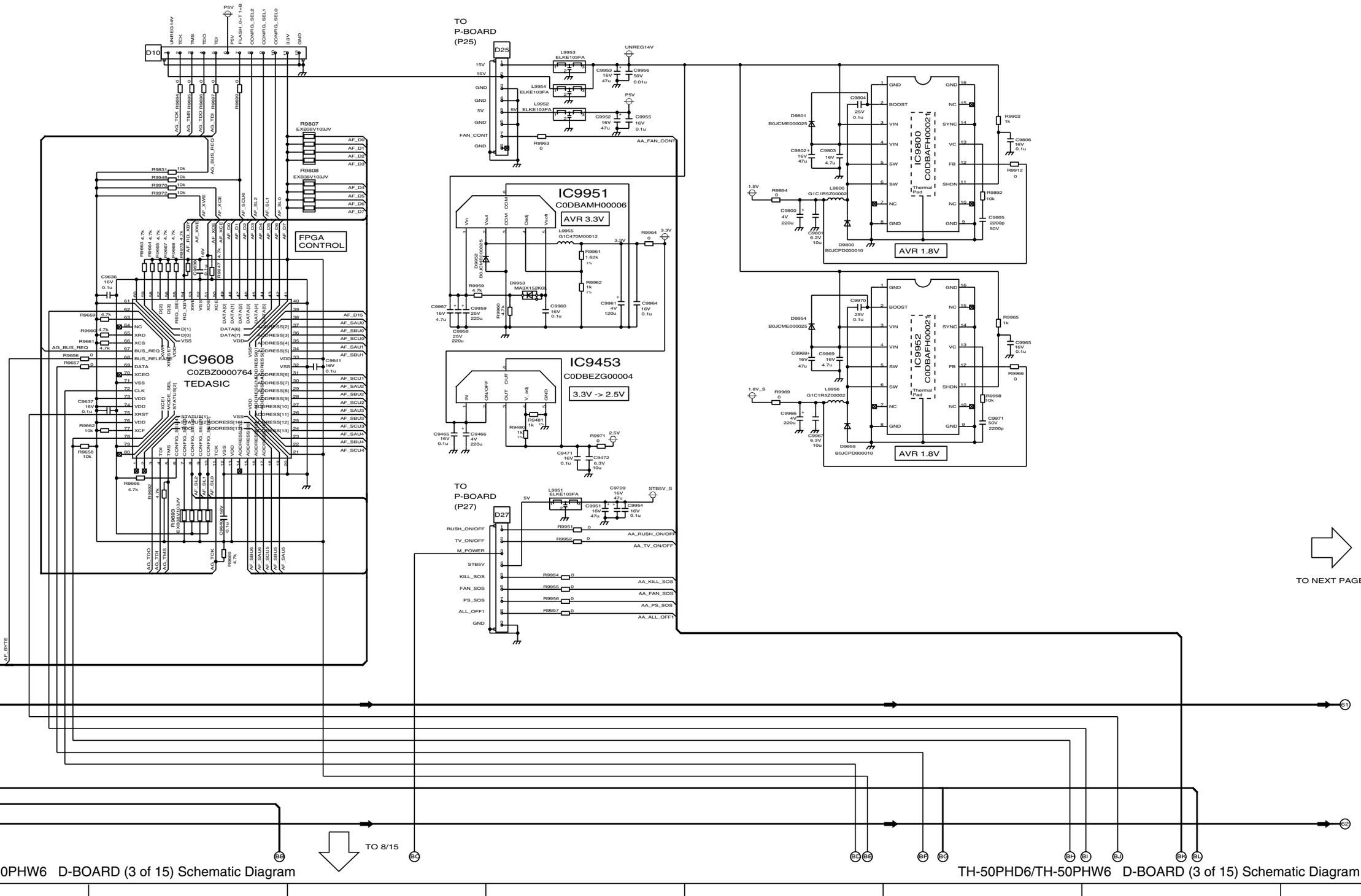
Q9002 2SD0601A0L

TO 7/15

TH-50PHD6/TH-50PHW6 D-BOARD (2 of 15) Schematic Diagram

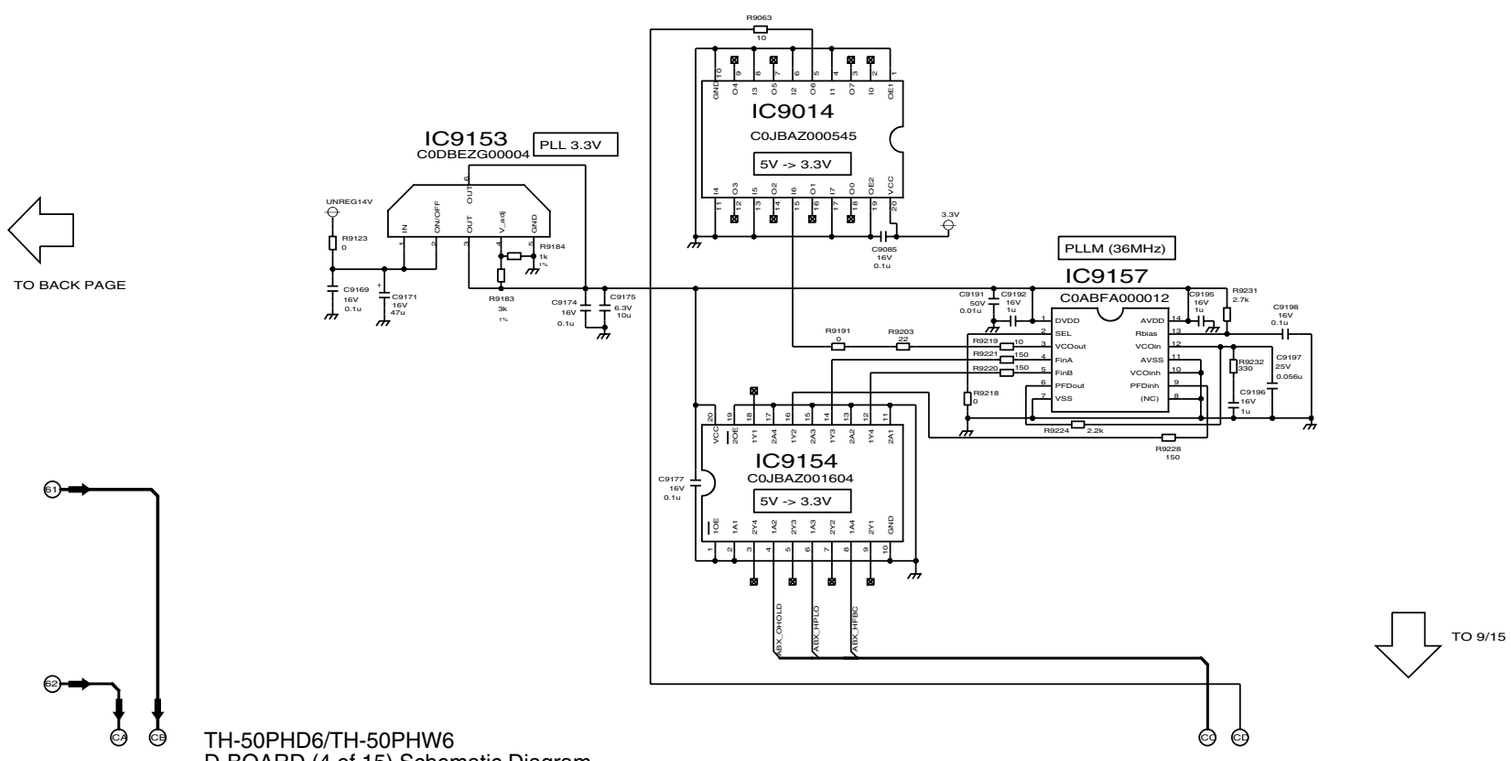
D-BOARD TXN/D10QMS (3/15)

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TH-50PHD6/TH-50PHW6 D-BOARD (3 of 15) Schematic Diagram

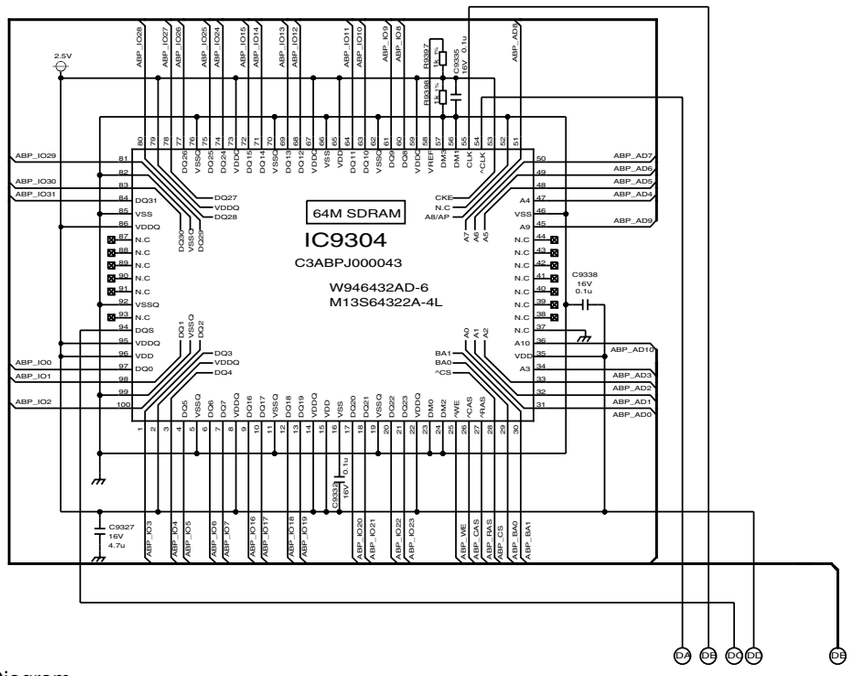
D-BOARD TXN/D10QMS (4/15)



TH-50PHD6/TH-50PHW6
D-BOARD (4 of 15) Schematic Diagram

TH-50PHD6/TH-50PHW6
D-BOARD (4 of 15) Schematic Diagram

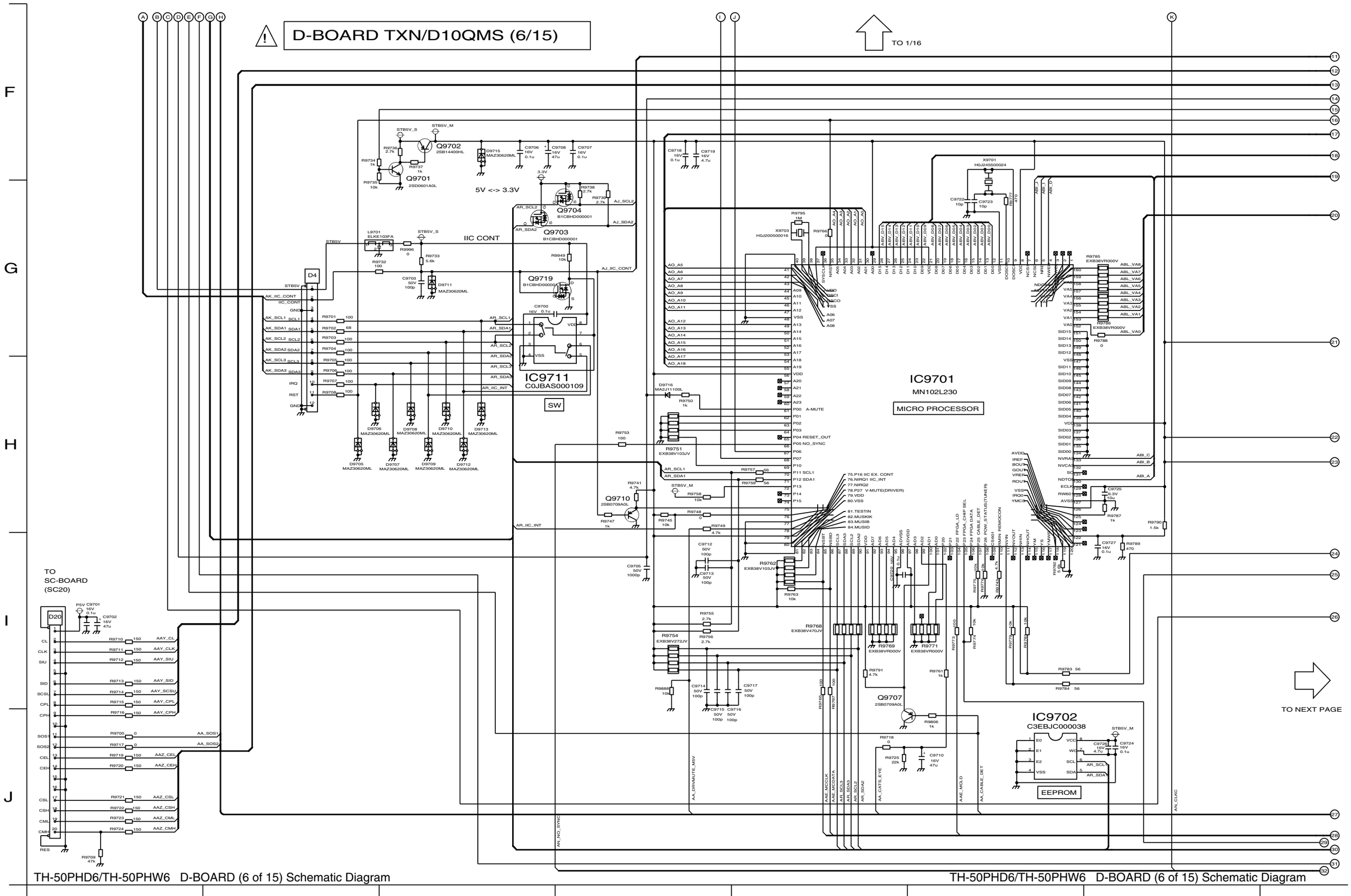
D-BOARD TXN/D10QMS (5/15)



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TH-50PHD6/TH-50PHW6
D-BOARD (5 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (6/15)



TH-50PHD6/TH-50PHW6 D-BOARD (6 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (7/15)

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CONVERT MICRO PROCESSOR

IC9704 C3HAHC000006 1Mbit VRAM

IC9705 C3FBLD000039 8M ROM

IC9703 C0JBAZ001604 3.3V -> 5V

IC9706 C0JBAZ000545 5V -> 3.3V

IC9707 C0JBAE000283

IC9708 C3EBGC000018 EEPROM

IC9709 C2BBGE000491

IC9710 C0EBB0000024 RESET

Q9706 B1CBHD000001

Q9708 2SD0601A0L

Q9709 2SD0601A0L

Q9714 2SD0601A0L

Q9715 2SD0601A0L

Q9716 2SD0601A0L

Q9717 2SD0601A0L

OR

STB5V_S

STB5V_M

P5V

3.3V

1.8V_S

1.8V

VPP12V

UNREG14V

TH-50PHD6/TH-50PHW6 D-BOARD (7 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (8/15)

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IC9605
C1ZBZ0002329
SYNC PROCESSOR/
OSD/
DISCHARGE CONTROL

IC9606
C0EBE0000066
RESET

IC9603
C0JBAZ001604
3.3V -> 5V

IC9604
C0JBAZ001604
3.3V -> 5V

IC9601
C0JBAZ001604
3.3V -> 5V

IC9602
C0JBAZ000545
5V -> 3.3V

Q9601
2SD0601A0L

Q9602
2SD0601A0L

TH-50PHD6/TH-50PHW6 D-BOARD (8 of 15) Schematic Diagram

IC9151
MN845041-A
FORMAT CONVERTER

IC9152
C0CBCBD00008
AVR 3.3V

Analog
A/D PLL
OCK PLL
Digital-B
Digital-C
IIC
OSD
To micom
SD-RAM I/F

D-BOARD
TXN/D10QMS
(9/15)

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TH-50PHD6/TH-50PHW6 D-BOARD (9 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (10/15)

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SCK PLL

For many use

Output - A LEFT(Master)

Output - B RIGHT(Slave)

TEST

IC9155 64M-SDRAM C3ABPJ000042

TH-50PHD6/TH-50PHW6 D-BOARD (10 of 15) Schematic Diagram

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TO C2-BOARD (C24)

TO C5-BOARD (C54)

AVR 3.3V

IC9302 C0CBCBD00008

IC9303 C1ZBZ0002357

IC9301 C1ZBZ0002358

PLL SYNTHESIZER

PLL SYNTHESIZER

3.3V->5V

IC9457 SN74ACT244PWR C0JBAZ001604

Q9301 2SD0601A0L

Q9598 2SD0601A0L

Q9599 2SD0601A0L

Q9592 2SD0601A0L

Q9593 2SD0601A0L

D34 IR/R

D31

D-BOARD TXN/D10QMS (11/15)

TH-50PHD6/TH-50PHW6 D-BOARD (11 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (12/15)

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TO 5/16

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IC9305 MN84510-A RIGHT(Slave)

PLASMA AI SUB FIELD PROCESSOR

From LSI43

CLK

65MHz clk — PCK

DRAM clk — DRAMCK

50MHz clk — OCK

130MHz DLL — DLLCKIN / DLLPOUT

130MHz CKOUT — CLK / NCLK

other

NC, NC, NC, NC, TCPOUT

FC RAM I/F

DQS0, DQS1, DQS2, DQS3, CS, RAS, CAS, WE, BA0, BA1, BA2, FCADR0–FCADR7, FCADR8, FCADR9, FCADR10, FCADRX

FPGA I/F

LATCH, SFVRST, SFRST, AUP, FPCLK, FPDAT0, FPDAT1

TEST

PTESTDRAM0, PTESTDRAM1, NTDRAM, MINTEST, SCANE, TIOCTL0, TIOCTL1, TIOCTL2, TEST0–TEST5

IIC

TILD, SDA, SCL, ID0, ID1, TIIC

Flash ROM I/F

ROMD0–ROMD15, ROMCE

TH-50PHD6/TH-50PHW6 D-BOARD (12 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (13/15)

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IC9454
C3ABPJ000043
64M SDRAM

FPGA I/F

TEST

IIC

CLK

other

From LSI43

to lsi47

TH-50PHD6/TH-50PHW6 D-BOARD (13 of 15) Schematic Diagram

D-BOARD TXN/D10QMS (14/15)

IC9455 MN84510-A L master

PLASMA AI
SUB FIELD PROCESSOR

FC RAM I/F

IC9455 G1	DQS0	ABS_CS	IC9455 H1	CS	ABS_AD0	IC9455 E2	FCADR0	ABS_AD8	IC9455 M2	FCADR8	ABS_IO0	IC9455 R2	FCIO0	ABS_IO8	IC9455 T4	FCIO6
IC9455 H4	DQS1	ABS_RAS	IC9455 N2	RAS	ABS_AD1	IC9455 E1	FCADR1	ABS_AD9	IC9455 M3	FCADR9	ABS_IO1	IC9455 R3	FCIO1	ABS_IO9	IC9455 W1	FCIO9
IC9455 H3	DQS2	ABS_CAS	IC9455 N3	CAS	ABS_AD2	IC9455 F3	FCADR2	ABS_AD10	IC9455 M4	FCADR10	ABS_IO2	IC9455 T1	FCIO2	ABS_IO10	IC9455 V2	FCIO10
IC9455 H2	DQS3	ABS_WE	IC9455 P2	WE	ABS_AD3	IC9455 F2	FCADR3		IC9455 N1	FCADRX	ABS_IO3	IC9455 T2	VDD33	ABS_IO11	IC9455 Y1	FCIO11
130MHz CKOUT		ABS_BA0	IC9455 P3	BA0	ABS_AD4	IC9455 F1	FCADR4				ABS_IO4	IC9455 U1	VSS	ABS_IO12	IC9455 V3	FCIO12
IC9455 K3	CLK	ABS_BA1	IC9455 P4	BA1	ABS_AD5	IC9455 G4	FCADR5				ABS_IO5	IC9455 U2	FCIO5	ABS_IO13	IC9455 W2	FCIO13
IC9455 K2	NCLK		IC9455 R1	BA2	ABS_AD6	IC9455 G3	FCADR6				ABS_IO6	IC9455 T3	DOUTAU7	ABS_IO14	IC9455 V4	FCIO14
					ABS_AD7	IC9455 G2	FCADR7				ABS_IO7	IC9455 U3	FCIO7	ABS_IO15	IC9455 W3	FCIO15

ABS_IO16	IC9455 Y2	VSS	ABS_IO24	IC9455 AB4	FCIO24	IC9455 H14	VDD18	IC9455 W4	VDD18	IC9455 Y5	VDD18	IC9455 P1	VSS	IC9455 R8	VSS
ABS_IO17	IC9455 AA1	FCIO17	ABS_IO25	IC9455 AC4	FCIO25	IC9455 H15	VDD18	IC9455 W6	VDD18	IC9455 Y6	VDD18	IC9455 P8	VSS	IC9455 R9	VSS
ABS_IO18	IC9455 AA2	VSS	ABS_IO26	IC9455 AA6	FCIO26	IC9455 K19	VDD18	IC9455 W7	VDD18	IC9455 Y18	VDD18	IC9455 P9	VSS	IC9455 R10	VSS
ABS_IO19	IC9455 Y3	FCIO19	ABS_IO27	IC9456 Y7	FCIO27	IC9455 V5	VDD18	IC9455 W17	VDD18	IC9455 Y19	VDD18	IC9455 P10	VSS	IC9455 R11	VSS
ABS_IO20	IC9455 AB3	FCIO20	ABS_IO28	IC9455 AB5	FCIO28	IC9455 V19	VDD18	IC9455 W18	VDD18			IC9455 P11	VSS	IC9455 R12	VSS
ABS_IO21	IC9455 AA4	FCIO21	ABS_IO29	IC9455 AA7	FCIO29							IC9455 P12	VSS	IC9455 R13	VSS
ABS_IO22	IC9455 AC3	FCIO22	ABS_IO30	IC9455 AB6	FCIO30							IC9455 P13	VSS	IC9455 R14	VSS
ABS_IO23	IC9455 AA5	FCIO23	ABS_IO31	IC9455 AC5	FCIO31							IC9455 P14	VSS	IC9455 R15	VSS
												IC9455 P15	VSS	IC9455 R16	VSS
												IC9455 P16	VSS		

IC9455 T8	VDD25	IC9455 AB1	VSS	IC9455 W5	VSS	IC9455 Y8	VDD33	IC9455 W8	VDD33	IC9455 W13	VDD33				
IC9455 T9	VSS	IC9455 AB2	VSS	IC9455 W19	VSS	IC9455 Y10	VDD33	IC9455 W9	VDD33	IC9455 W14	VDD33				
IC9455 T10	VSS	IC9455 AB22	VSS			IC9455 Y12	VDD33	IC9455 W10	VDD33	IC9455 W15	VDD33				
IC9455 T11	VSS	IC9455 AB23	VSS			IC9455 Y14	VDD33	IC9455 W11	VDD33	IC9455 W16	VDD33				
IC9455 T12	VSS					IC9455 Y16	VDD33	IC9455 W12	VDD33						
IC9455 T13	VSS														
IC9455 T14	VSS														
IC9455 T15	VSS	IC9455 AC1	VSS	IC9455 Y4	VSS										
IC9455 T16	VSS	IC9455 AC2	VSS	IC9455 Y20	FCIO16	IC9455 AA3	VSS								
		IC9455 AC6	VSS			IC9455 AA21	FCIO18	IC9455 AC22	VSS						
		IC9455 AC10	VSS					IC9455 AC23	VSS						
		IC9455 AC14	VSS												
		IC9455 AC18	VSS												

C9489 16V 0.1u
C9491 16V 0.1u
C9490 16V 0.1u
C9492 16V 0.1u

to DATA Driver

AI_AU0	IC9455 AA20	DOUTAU0	AI_BU0	IC9455 AB21	DOUTBU0	AI_CU0	IC9455 AB20	DOUTCU0	ABK_AD0	IC9455 AB19	DOUTAD0	ABK_BD0	IC9455 AA19	DOUTBD0	ABK_CD0	IC9455 AC21	DOUTCD0
AI_AU1	IC9455 W20	DOUTAU1	AI_BU1	IC9455 AA22	DOUTBU1	AI_CU1	IC9455 Y21	DOUTCU1	ABK_AD1	IC9455 Y17	DOUTAD1	ABK_BD1	IC9455 AC19	DOUTBD1	ABK_CD1	IC9455 AC20	DOUTCD1
AI_AU2	IC9455 AA23	DOUTAU2	AI_BU2	IC9455 W21	DOUTBU2	AI_CU2	IC9455 Y22	DOUTCU2	ABK_AD2	IC9455 AA17	DOUTAD2	ABK_BD2	IC9455 AB18	DOUTBD2	ABK_CD2	IC9455 AA18	DOUTCD2
AI_AU3	IC9455 W22	DOUTAU3	AI_BU3	IC9455 V20	DOUTBU3	AI_CU3	IC9455 Y23	DOUTCU3	ABK_AD3	IC9455 AA16	DOUTAD3	ABK_BD3	IC9455 AC17	DOUTBD3	ABK_CD3	IC9455 AB17	DOUTCD3
AI_AU4	IC9455 W23	DOUTAU4	AI_BU4	IC9455 V22	DOUTBU4	AI_CU4	IC9455 V21	DOUTCU4	ABK_AD4	IC9455 AC16	DOUTAD4	ABK_BD4	IC9455 Y15	DOUTBD4	ABK_CD4	IC9455 AB16	DOUTCD4
AI_AU5	IC9455 U21	DOUTAU5	AI_BU5	IC9455 V23	DOUTBU5	AI_CU5	IC9455 U20	DOUTCU5	ABK_AD5	IC9455 AA14	DOUTAD5	ABK_BD5	IC9455 AB15	DOUTBD5	ABK_CD5	IC9455 AA15	DOUTCD5
AI_AU6	IC9455 T20	FCIO3	AI_BU6	IC9455 U23	DOUTBU6	AI_CU6	IC9455 U22	DOUTCU6	ABK_AD6	IC9455 AA13	DOUTAD6	ABK_BD6	IC9455 AB14	DOUTBD6	ABK_CD6	IC9455 AC15	DOUTCD6
AI_AU7	IC9455 T23	DOUTBU7	AI_BU7	IC9455 T22	DOUTBU7	AI_CU7	IC9455 T21	DOUTAU6	ABK_AD7	IC9455 AC13	DOUTAD7	ABK_BD7	IC9455 AB13	DOUTBD7	ABK_CD7	IC9455 Y13	DOUTCD7
AI_AU8	IC9455 R22	DOUTAU8	AI_BU8	IC9455 R21	DOUTBU8	AI_CU8	IC9455 R20	DOUTCU8	ABK_AD8	IC9455 AA12	DOUTAD8	ABK_BD8	IC9455 AB12	DOUTBD8	ABK_CD8	IC9455 AC12	DOUTCD8
AI_AU9	IC9455 P20	DOUTAU9	AI_BU9	IC9455 P19	DOUTBU9	AI_CU9	IC9455 R23	DOUTCU9	ABK_AD9	IC9455 AA11	DOUTAD9	ABK_BD9	IC9455 AB11	DOUTBD9	ABK_CD9	IC9455 AC11	DOUTCD9
AI_AU10	IC9455 P23	DOUTAU10	AI_BU10	IC9455 P22	DOUTBU10	AI_CU10	IC9455 P21	DOUTCU10	ABK_AD10	IC9455 AA10	DOUTAD10	ABK_BD10	IC9455 AB10	DOUTBD10	ABK_CD10	IC9455 Y11	DOUTCD10
AI_AU11	IC9455 N21	DOUTAU11	AI_BU11	IC9455 N20	DOUTBU11	AI_CU11	IC9455 N19	DOUTCU11	ABK_AD11	IC9455 AC8	DOUTAD11	ABK_BD11	IC9455 AB9	DOUTBD11	ABK_CD11	IC9455 AC9	DOUTCD11
	IC9455 M20	DOUTAU12		IC9455 N23	DOUTBU12		IC9455 N22	DOUTCU12		IC9455 AC7	DOUTAD12		IC9455 AB8	DOUTBD12		IC9455 AA9	DOUTCD12
	IC9455 M23	DOUTAU13		IC9455 M22	DOUTBU13		IC9455 M21	DOUTCU13		IC9455 AB7	DOUTAD13		IC9455 AA8	DOUTBD13		IC9455 Y9	DOUTCD13

AP_CLKL — R9496 56 — IC9455 K23 DRVCLKU1
AP_NCLKL — R9498 56 — IC9455 K22 DRVCLKU2
IC9455 K21 DRVCLKU3
IC9455 K20 DRVCLKU4
R9501 56 — ABF_CKD1 — IC9455 J23 DRVCLKD1
IC9455 J21 DRVCLKD3
R9503 56 — ABF_CKD2 — IC9455 J22 DRVCLKD2
IC9455 J20 DRVCLKD4

Flash ROM I/F

AF_D0	IC9455 B16	ROMD0	AF_D8	IC9455 C14	ROMD8	IC9455 E12	ROMCE	AF_D0	IC9455 B16	ROMD0	AF_D8	IC9455 C14	ROMD8	IC9455 E12	ROMCE
AF_D1	IC9455 A16	ROMD1	AF_D9	IC9455 B14	ROMD9			AF_D1	IC9455 A16	ROMD1	AF_D9	IC9455 B14	ROMD9		
AF_D2	IC9455 D15	ROMD2	AF_D10	IC9455 A14	ROMD10			AF_D2	IC9455 D15	ROMD2	AF_D10	IC9455 A14	ROMD10		
AF_D3	IC9455 C15	ROMD3	AF_D11	IC9455 E13	ROMD11			AF_D3	IC9455 C15	ROMD3	AF_D11	IC9455 E13	ROMD11		
AF_D4	IC9455 B15	ROMD4	AF_D12	IC9455 D13	ROMD12			AF_D4	IC9455 B15	ROMD4	AF_D12	IC9455 D13	ROMD12		
AF_D5	IC9455 A15	ROMD5	AF_D13	IC9455 C13	ROMD13			AF_D5	IC9455 A15	ROMD5	AF_D13	IC9455 C13	ROMD13		
AF_D6	IC9455 E14	ROMD6	AF_D14	IC9455 B13	ROMD14			AF_D6	IC9455 E14	ROMD6	AF_D14	IC9455 B13	ROMD14		
AF_D7	IC9455 D14	ROMD7	AF_D15	IC9455 A13	ROMD15			AF_D7	IC9455 D14	ROMD7	AF_D15	IC9455 A13	ROMD15		

P5V
C9449 16V 0.1u
C9450 6.3V 10u
Q9400 2SD0601A0L
R9413 330
R9420 47k
R9415 4.7k
AF_BYTE

IC9459
C0JBAZ001992
BUS SW

AF_XCE	IC9459 26	2A12	AF_SAU3	IC9459 25	2A11	AF_SCU3	IC9459 24	2A10	AF_SBU3	IC9459 23	2A9	AF_SAU2	IC9459 22	2A8	AF_SCU2	IC9459 21	2A7
AF_SBU2	IC9459 20	2A6	AF_SAU1	IC9459 19	2A5	AF_SCU1	IC9459 18	2A4	AF_SBU1	IC9459 17	2A3	AF_SAU0	IC9459 16	VCC	AF_SCU0	IC9459 15	2A2
AF_SBU0	IC9459 14	2A1	AF_SCU4	IC9459 13	1A12	AF_SBU4	IC9459 12	1A11	AF_SAU4	IC9459 11	1A10	AF_SCU4	IC9459 10	1A9	AF_SBU4	IC9459 9	1A8
AF_SAU4	IC9459 8	1A7	AF_SCU5	IC9459 7	GND	AF_SBU5	IC9459 6	1A6	AF_SAU5	IC9459 5	1A5	AF_SCU5	IC9459 4	1A4	AF_SBU5	IC9459 3	1A3
AF_SAU5	IC9459 2	1A2	AF_SCU6	IC9459 1	1A1	AF_SBU6	IC9459 27	NC									
AF_SBU3	IC9459 28	2B12	AF_SAU2	IC9459 29	2B11	AF_SCU2	IC9459 30	2B10	AF_SBU2	IC9459 31	2B9	AF_SAU1	IC9459 32	2B8	AF_SCU1	IC9459 33	2B7
AF_SBU1	IC9459 34	2B6	AF_SAU0	IC9459 35	2B5	AF_SCU0	IC9459 36	2B4	AF_SBU0	IC9459 37	GND	AF_SAU6	IC9459 38	2B3	AF_SCU6	IC9459 39	2B2
AF_SBU6	IC9459 40	2B1	AF_SAU7	IC9459 41	1B12	AF_SCU7	IC9459 42	1B11	AF_SBU7	IC9459 43	1B10	AF_SAU3	IC9459 44	1B9	AF_SCU3	IC9459 45	1B8
AF_SBU3	IC9459 46	1B7	AF_SAU2	IC9459 47	1B6	AF_SCU2	IC9459 48	1B5	AF_SBU2	IC9459 49	GND	AF_SAU1	IC9459 50	1B4	AF_SCU1	IC9459 51	1B3
AF_SBU1	IC9459 52	1B2	AF_SAU0	IC9459 53	1B1	AF_SCU0	IC9459 54	2OE	AF_SBU0	IC9459 55	1OE						

AF_AU0	IC9459 56	AF_AU5	IC9459 57	AF_BU5	IC9459 58	AF_BU4	IC9459 59	AF_AU4	IC9459 60	AF_AU3	IC9459 61	AF_BU3	IC9459 62	AF_BU2	IC9459 63	AF_AU2	IC9459 64
AF_CU5	IC9459 65	AF_CU4	IC9459 66	AF_CU3	IC9459 67	AF_CU2	IC9459 68	AF_BU1	IC9459 69	AF_AU1	IC9459 70	AF_CU1	IC9459 71	AF_BU0	IC9459 72	AF_CU0	IC9459 73

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⚠ D-BOARD TXN/D10QMS (15/15)

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TO C2-BOARD (C25)

TO C5-BOARD (C55)

IC9456 C3FBND000172 32M-FLASH

L-UP

L9459 ELKE103FA

Q9597 2SD0601A0L

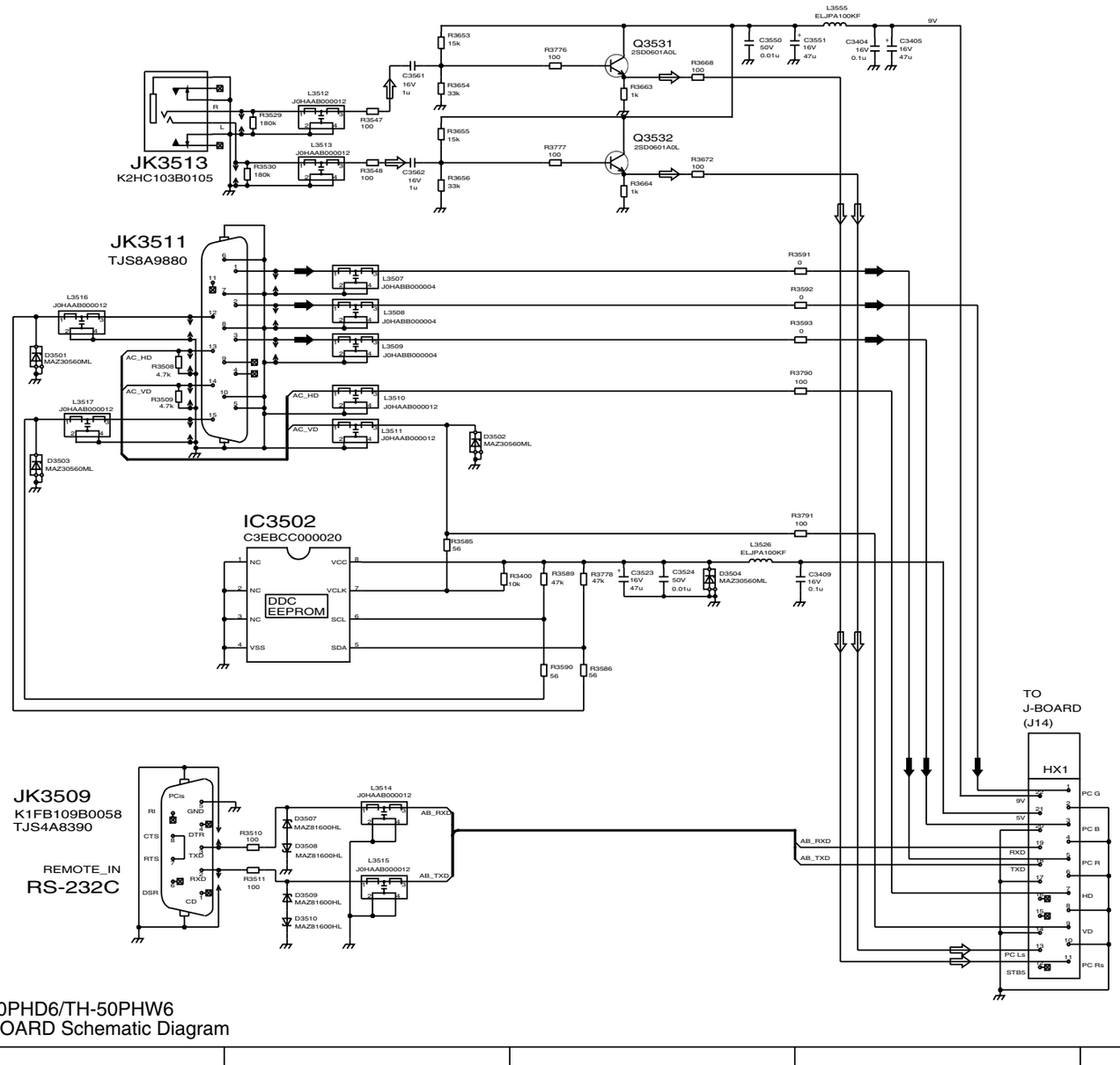
Q9596 2SD0601A0L

Q9594 2SD0601A0L

Q9591 2SD0601A0L

TH-50PHD6/TH-50PHW6 D-BOARD (15 of 15) Schematic Diagram

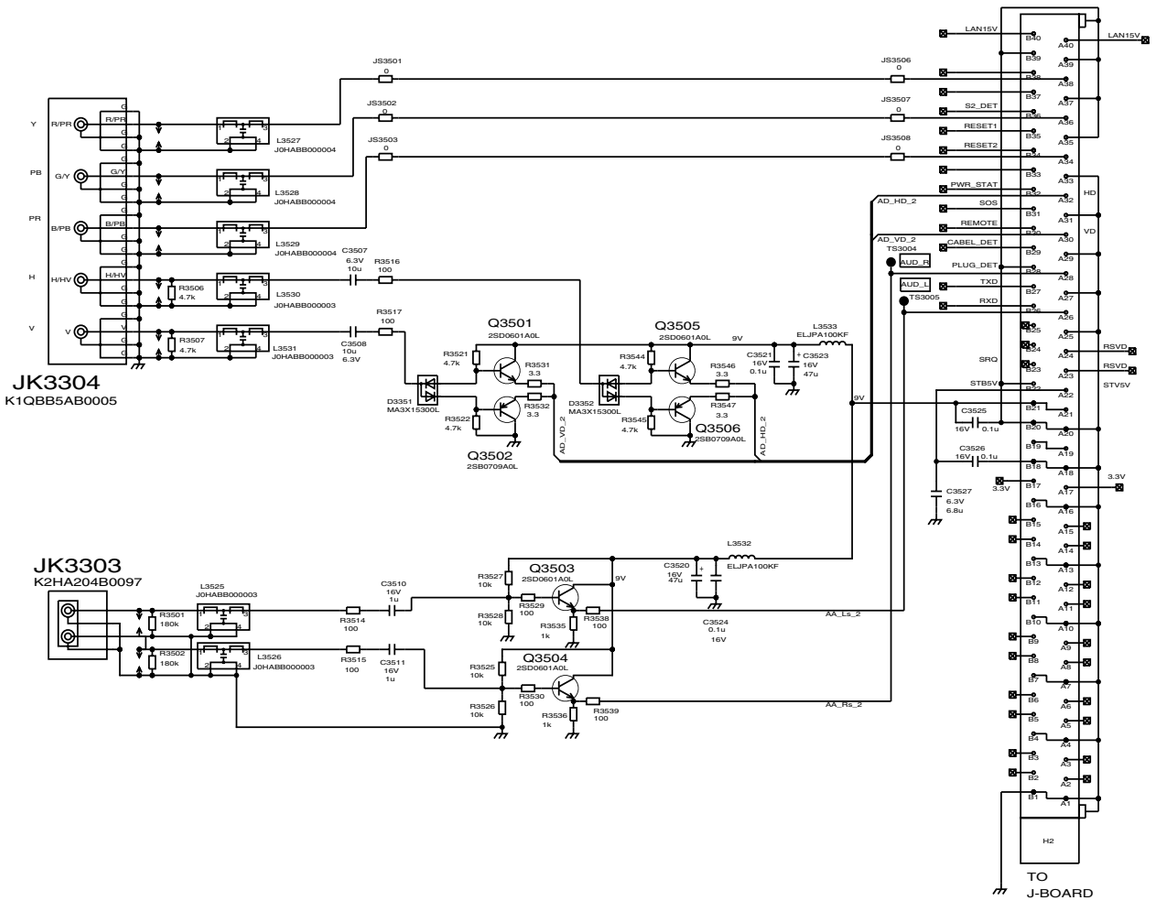
⚠ HX-BOARD TXNHX10QBS



TH-50PHD6/TH-50PHW6
HX-BOARD Schematic Diagram

TH-50PHD6/TH-50PHW6
HX-BOARD Schematic Diagram

⚠ HY-BOARD TXNHY10QBS (1/3)



TH-50PHD6/TH-50PHW6
HY-BOARD (1 of 3) Schematic Diagram

TH-50PHD6/TH-50PHW6 HY-BOARD (1 of 3) Schematic Diagram

HY-BOARD TXNHY10QBS (2/3)

IC3101
C0DBEZG00004
AD2R5V
AVR 2.5V
L3101 ELJPA100KF

IC3104
C0EBE0000066
RESET

IC3102
C0DBZLB00001
ERROR DET
D3001 MA2J72900L

IC3201
C3HBKZ000001
MSR1V0552-00-13TA
5M_FIFO

IC3301
C0CBABB00029
AVR 3.3V

IC3105
C0JBAZ001834
5V -> 3.3V

Global_tvsignal_processing_CoreLSI
GC2M+
ver.2_for_Main_processor

IC3103
C1AB00001826

IC3303
AN80L25RMSTX
AVR 2.5V

Q3403 2SD0601A0L
Q3005 2SD0601A0L
Q3023 2SD0601A0L
Q3102 2SD1030OTL
Q3101 2SB0709A0L
Q3104 2SD1030OTL
Q3007 2SB0709A0L

L3007 G1C2R2X20006
L3006 J0E8004B0008

JS3301 JS3302 JS3303 JS3304 JS3305 JS3306
JS3307 JS3308 JS3309 JS3310 JS3311 JS3312

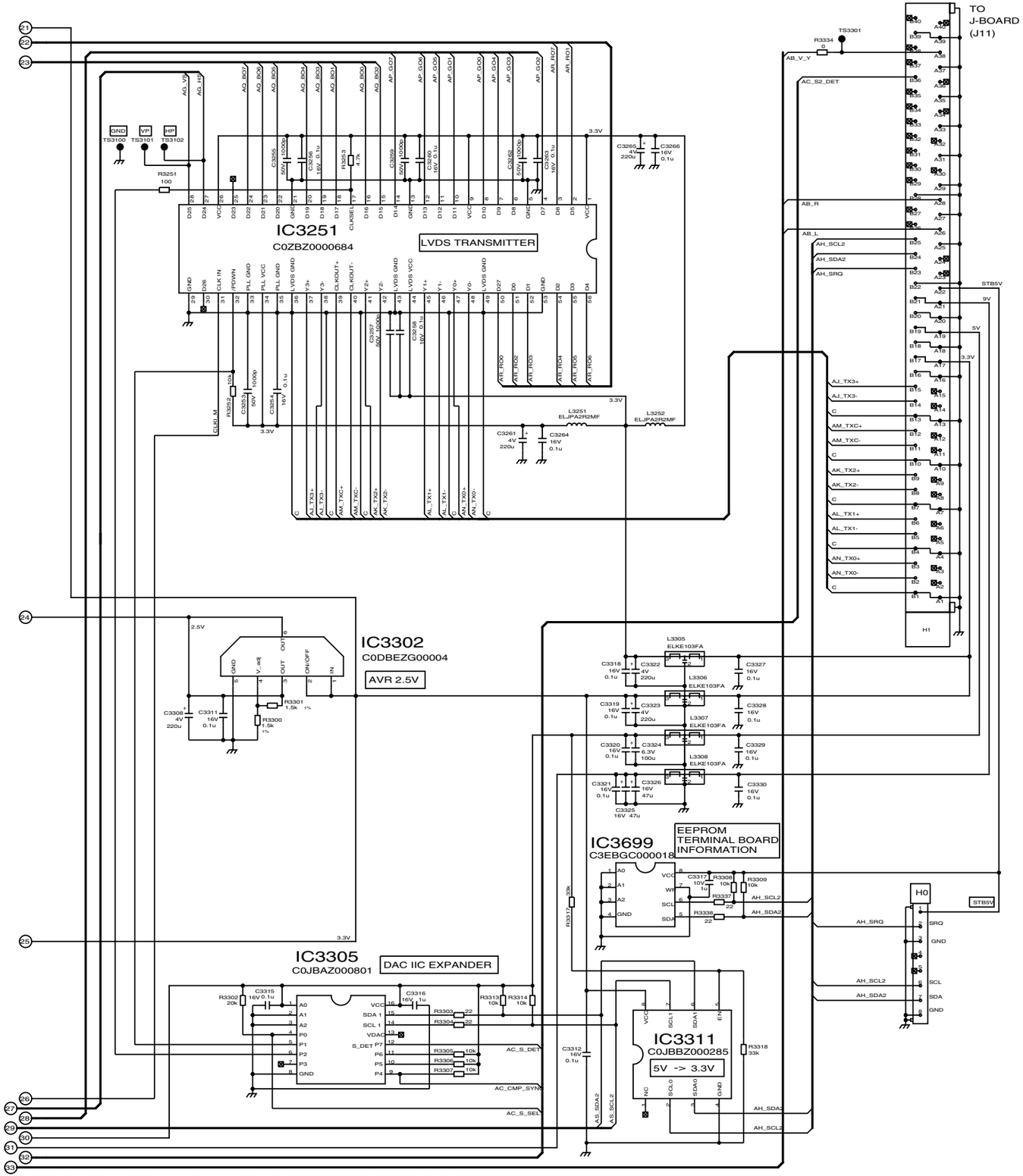
3.3V
5V
GC3R3V
GC2R5V
DA2.5V
PLL2.5V

For BurstLock PLL Macro
For Mid_CLK PLL Macro
For FBP PLL

AQ_BO7
AQ_BO6
AQ_BO5
AQ_BO4
AQ_BO3
AQ_BO2
AQ_BO1
AQ_BO0

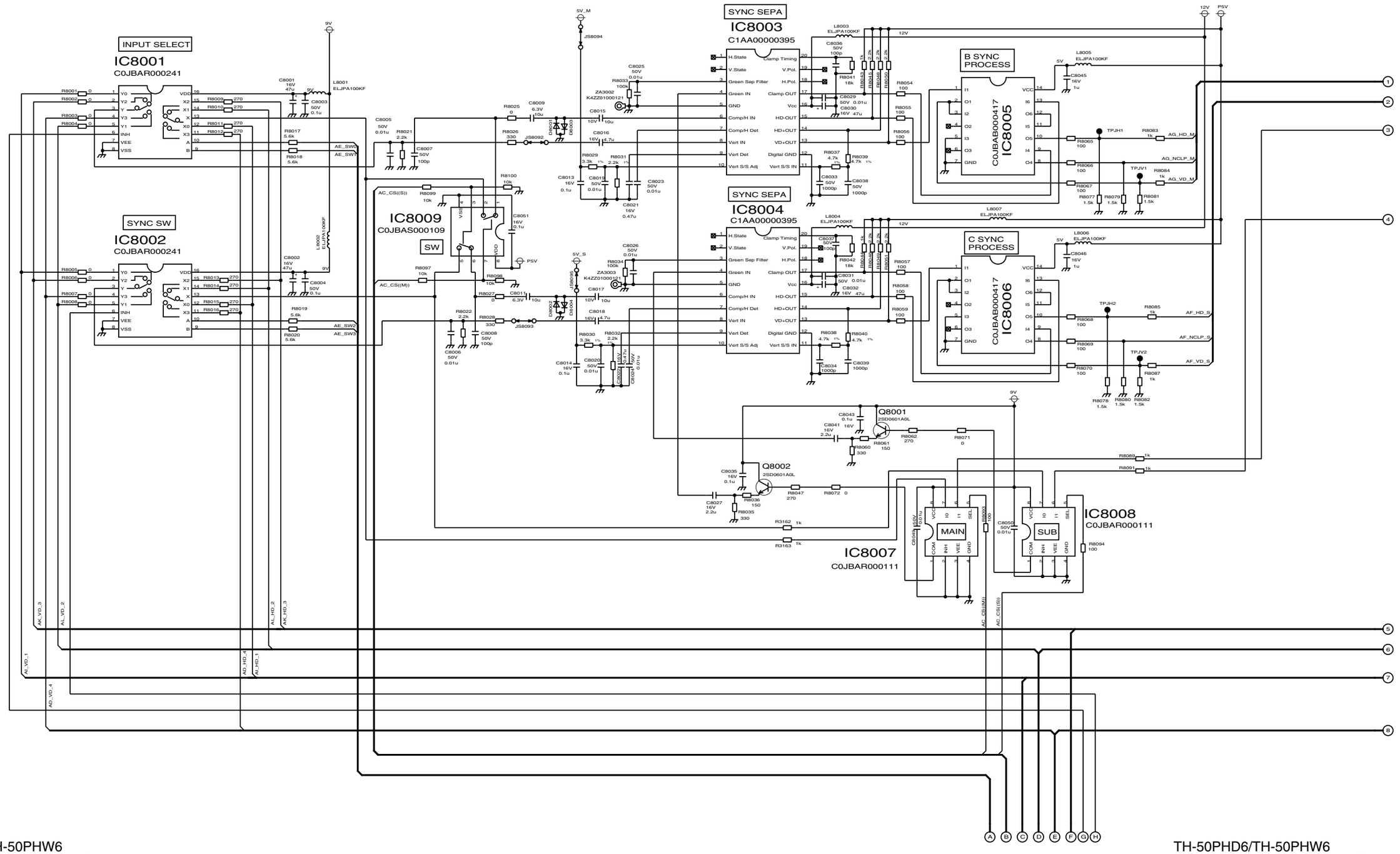
TH-50PHD6/TH-50PHW6 HY-BOARD (2 of 3)Schematic Diagram

HY-BOARD TXNHY10QBS (3/3)



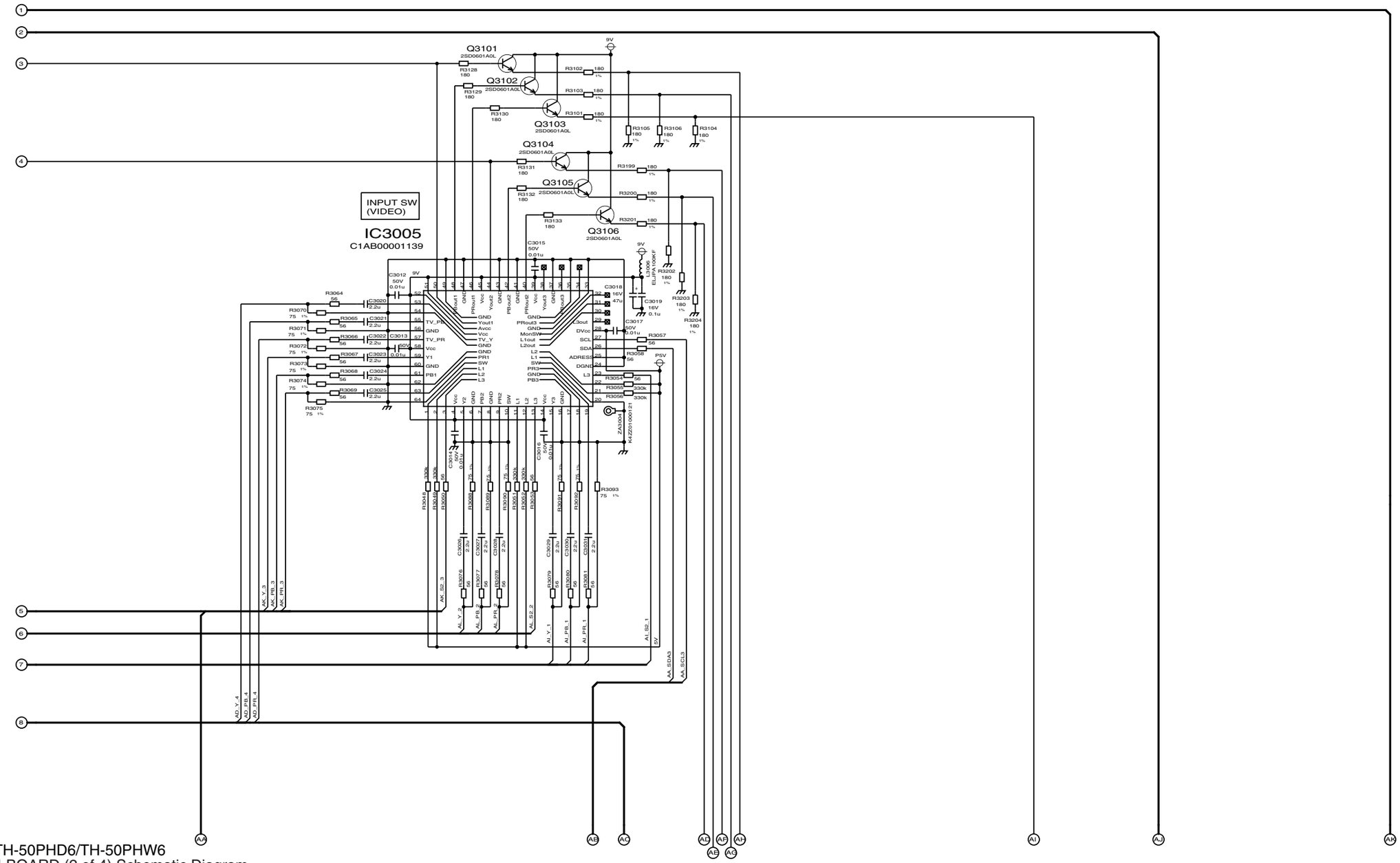
TH-50PHD6/TH-50PHW6 HY-BOARD (3 of 3) Schematic Diagram

⚠ J-BOARD TNPA2826 (1/4)



TH-50PHD6/TH-50PHW6
J-BOARD (1 of 4) Schematic Diagram

J-BOARD TNPA2826 (2/4)



TH-50PHD6/TH-50PHW6
J-BOARD (2 of 4) Schematic Diagram

TH-50PHD6/TH-50PHW6
J-BOARD (2 of 4) Schematic Diagram